

685-17

TRUSCON STEEL WINDOWS

OCT 29 1929





Truscon Steel Co., Youngstown, Ohio, where Truscon Steel Windows are Manufactured and Stocked

TRUSCON STEEL WINDOWS

OCT 29 1920

PIVOTED SIDE WALL
CONTINUOUS TOP-HUNG
COUNTERBALANCED SLIDING



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TRUSCON STEEL COMPANY

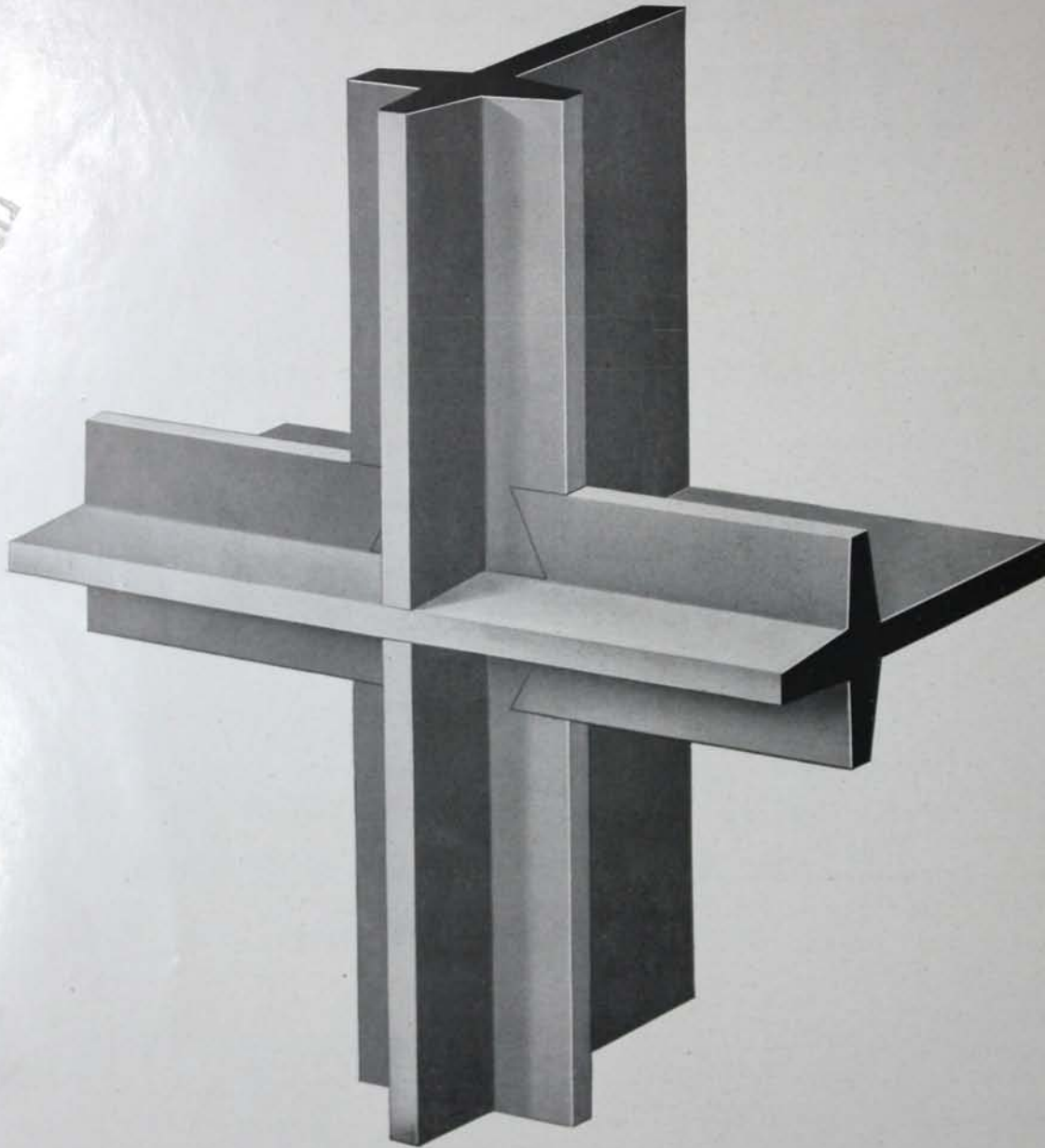
(FORMERLY TRUSSED CONCRETE STEEL CO.)
YOUNGSTOWN, OHIO.

ATLANTA, GA., 600 Forsyth Bldg.
BALTIMORE, MD., Munsey Bldg.
BOSTON, MASS., 146 Summer St.
CHICAGO, ILL., 16th Floor Majestic Bldg.
CINCINNATI, O., 617 Provident Bank Bldg.
CLEVELAND, O., 621-2 Hippodrome Bldg.
COLUMBUS, O., 1000 Col. Sav. & Trust Bldg.
DALLAS, TEX., 738 Wilson Bldg.
DAYTON, O., 902 Mutual Home Bldg.
DENVER, COL., 510 Colorado Bldg.
DETROIT, MICH., 58-60 Lafayette Blvd., W.
EL PASO, TEX., Olive and Dallas Sts.
INDIANAPOLIS, IND., City Trust Bldg.
KANSAS CITY, MO., 611 Bryant Bldg.
LOS ANGELES, CAL., 1520 Bay St.
LOUISVILLE, KY., 628 Paul Jones Bldg.
MEMPHIS, TENN., Union & Planters
Bank & Trust Bldg.
MILWAUKEE, WIS., 415 M. & M. Bank Bldg.

MINNEAPOLIS, MINN., 603 Metropolitan Bank Bldg.
NEW ORLEANS, LA., Carolina Portland Cement Co.
NEW YORK, N. Y., 110 W. 40th St.
NORFOLK, VA., 416 Dickson Bldg.
OKLAHOMA CITY, OKLA., 716 Colcord Bldg.
OMAHA, NEBR., 404 Finance Bldg.
PHILADELPHIA, PA., 810 Commonwealth Bldg.
PITTSBURGH, PA., 2541 Oliver Bldg.
PORTLAND, ORE., 194 N. 13th St.
ROSWELL, N. M., W. A. Wilson, County Eng's Office
ST. LOUIS, MO., 1006 Syndicate Trust Bldg.
SALT LAKE CITY, UTAH, 423-4 McIntyre Bldg.
SAN ANTONIO, TEX., 338 Bedell Bldg.
SAN FRANCISCO, CAL., 10th and Bryant Sts.
SEATTLE, WASH., 601 Central Bldg.
SPOKANE, WASH., 1416 Old National Bank Bldg.
SYRACUSE, N. Y., 440 Gurney Bldg.
TOLEDO, OHIO, 518-19 Spitzer Bldg.
WASHINGTON, D. C., 314 Woodward Bldg.

FOREIGN TRADE DEPT., No. 2 RECTOR ST., NEW YORK CITY

PIVOTED TYPES OF TRUSCON STEEL WINDOWS



Truscon Dovetail Miter Joint

Note remarkable strength and neat appearance. No unsightly projections to detract from straight, clean-cut lines.

Pivoted Types of Truscon Steel Windows

A steel window for industrial and commercial buildings which combines the best modern features of engineering and architectural design—a distributor of daylight and fresh air to interiors—a protection against storms, fire and decay—a window of ample strength for all practical conditions of building—an architectural accomplishment with its straight, clean-cut lines—a harmonious element of the best in modern building—these are the features of Truscon Steel Windows.

Sections

The members of Truscon Steel Windows consist of deep, heavy, solid, one-piece sections rolled from special new billet steel. In determining the shape of the muntin sections, a large number of designs were submitted to leading architects and engineers. The cross-shaped section was selected because of the beauty of its architectural lines and its mechanical advantages in strength and manufacture. All sections used in Truscon Steel Windows are designed to give great strength, thorough weatherproofness and trim appearance. See Page 9 for full sized illustrations.

Joint

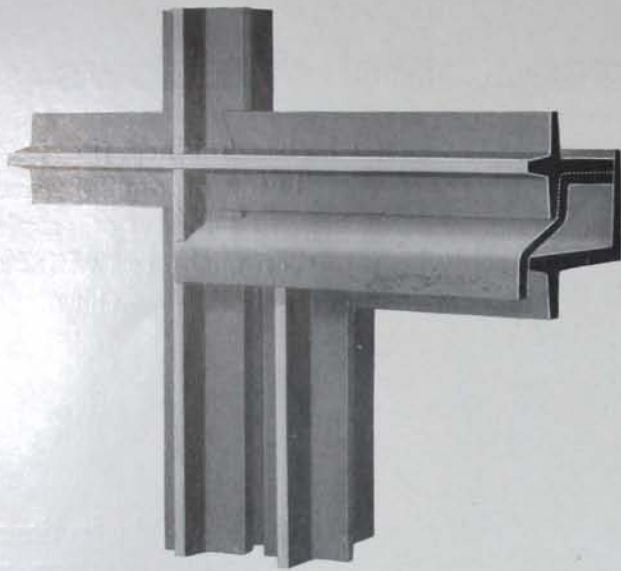
The intersection of horizontal and vertical muntins is formed by a special dovetail miter, interlocking the bars so as to make them continuous from jamb to jamb and from head to sill. This dovetail miter joint gives the window maximum strength against direct wind pressure and wind suction.

The intersection is accurately formed by machine dies so as to allow the bars to be assembled with a driving fit, making the intersection an absolutely tight and weatherproof union. The joint is a solid unit with no overlapping members to form pockets where moisture may collect and corrosion take place. There are no surfaces of the Truscon joint which cannot be readily protected by paint.

The square shoulder of the dovetail miter holds the muntins rigidly at right angles, preventing racking and distortion of the window during handling and erection. The sections and their intersections have been carefully designed to give straight, clean-cut lines with no unsightly projections to detract from the architectural appearance.

The strength of a sash joint depends on the scientific distribution of the material to most effectively carry the load. Merely retaining a mass of material at the joint does not mean strength, particularly when this material is bent and in no position to resist stresses. The dovetail mitered joint of the Truscon Steel Window makes continuous members of all muntins, assuring greatest possible strength in both directions.

PIVOTED TYPES OF TRUSCON STEEL WINDOWS

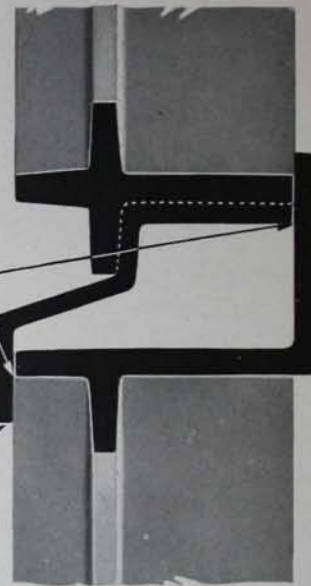


Outside view of upper corner of ventilator

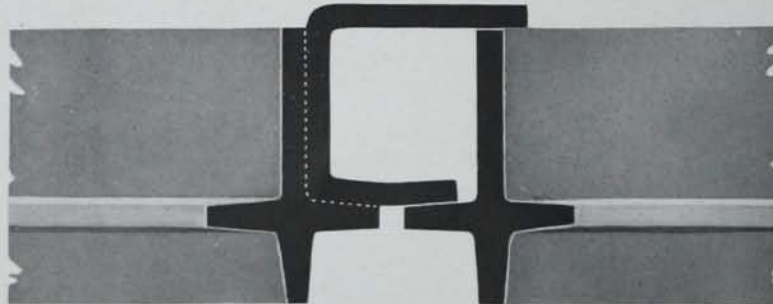
Note clean-cut lines and perfect weathering.

Continuous
Double Contact
Weathering

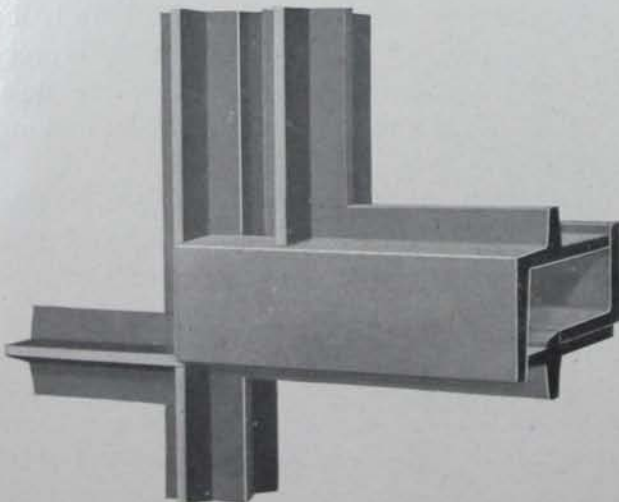
Heavy Stiffening
Section —
Perfect Drip



Vertical section at top of ventilator



Section at jamb of ventilator. Continuous double contact weathering. Heavy reinforced frame

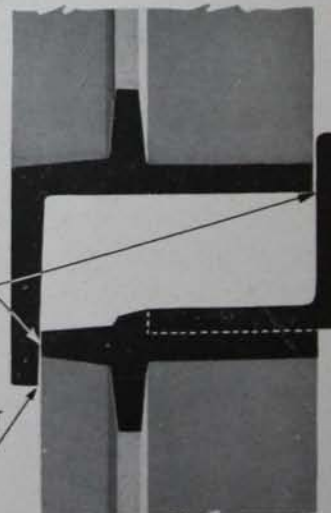


Outside view of lower corner of ventilator

Note excellent watershed and drip.

Continuous
Double Contact
Weathering

Heavy Stiffening
Section —
Perfect Drip



Vertical section at bottom of ventilator

Ventilators

The ventilator is a vital part of the steel window. To ventilate properly, shut out storms and operate freely, it must have ample strength, effective weathering and suitable hardware.

The continuous double contact weathering all around the Truscon ventilator reinforces the sash against sagging. The dovetail mitered joints prevent the ventilator from becoming distorted and out of square. The heavy weathering members stiffen the ventilator and keep it true and rigid, so that the ventilator when closed bears tightly at all points.

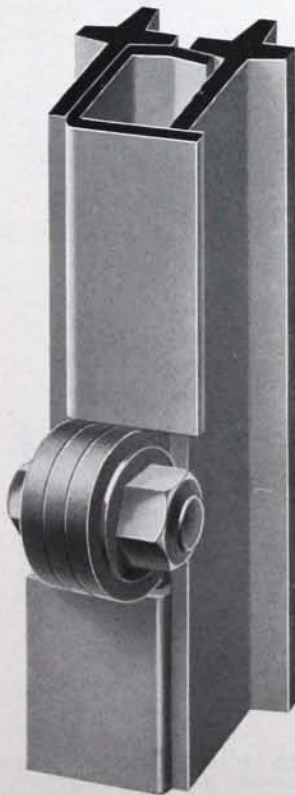
The deep heavy sections at the top and bottom form a perfect drip. There are no pockets to collect dirt, no weep holes to become clogged, and no obstructions on sections to hold moisture. The double contact weathering effectively excludes rain or snow.

The ventilators of Truscon Steel Windows are horizontally pivoted two inches above the center, and are fitted with strong, neat-appearing rolled steel butts with heavy steel pivots. The butts are solidly riveted to the muntins through the weathering sections, making a strong, substantial support for the ventilator.

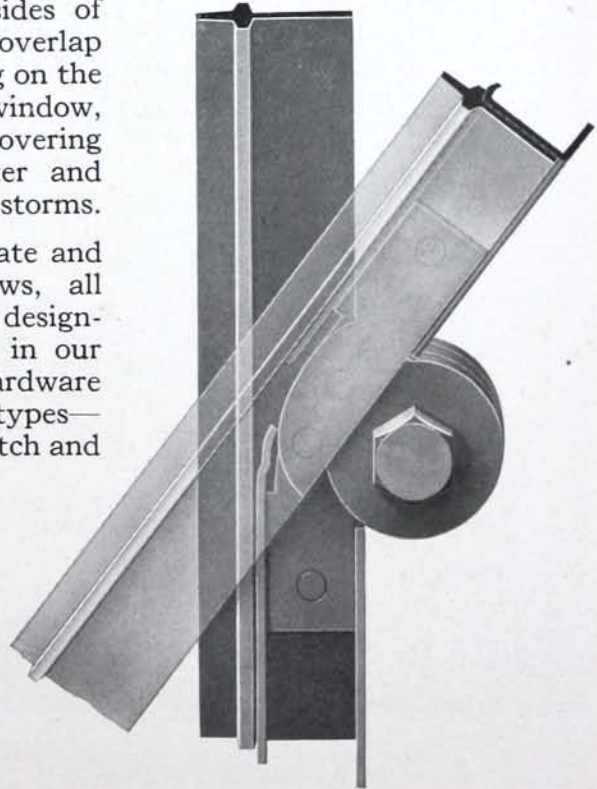
The two sections of the butt are separated by a washer, forming an opening through which any moisture which collects in the weathering above the pivot drains to the bottom of the ventilator and readily escapes outside. There are no openings in the weathering

sections at the pivots. The channel sections on sides of ventilator at the pivot overlap the channel weathering on the fixed portion of the window, forming an effective covering which sheds the water and shuts out the wind and storms.

To perfectly operate and lock Truscon Windows, all hardware is especially designed and manufactured in our own plant. This hardware is furnished in two types—push bar, and spring latch and chain.

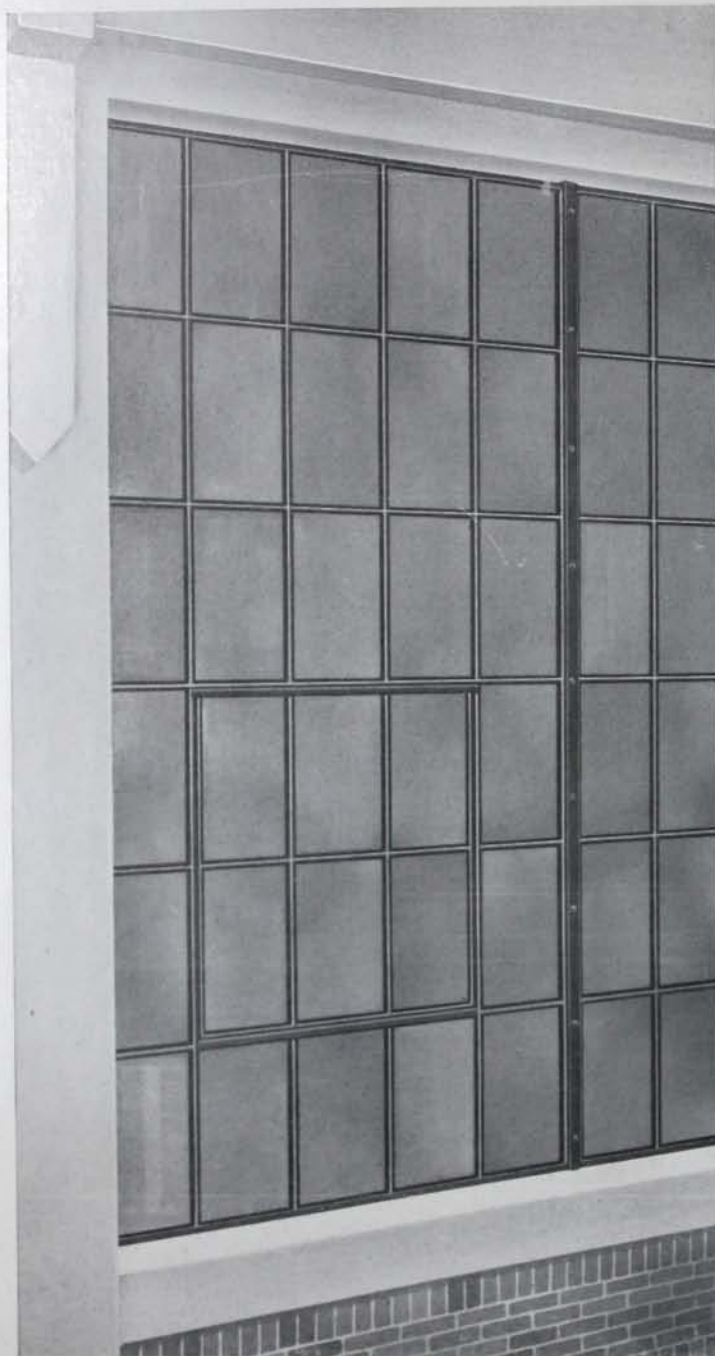


Inside view of ventilator at pivot. Heavy steel butts with strong pivot and channel section with long bearing surface, giving double contact weathering.

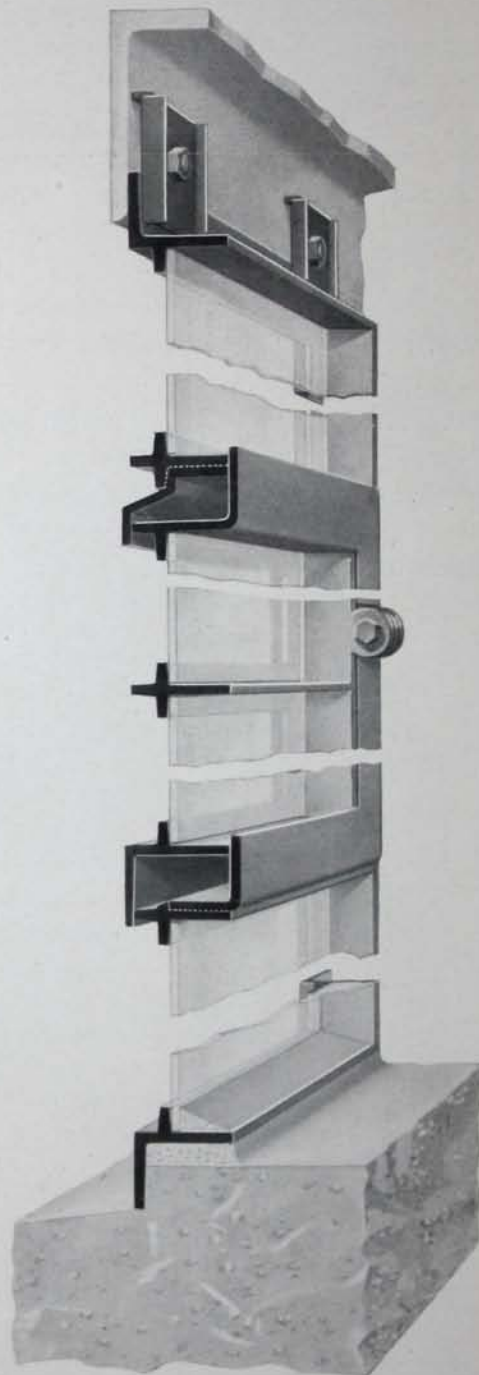


Phantom view of ventilator at pivot. Butts riveted to sash section through channel weathering. Overlapping surfaces at pivot keep out rains and storms.

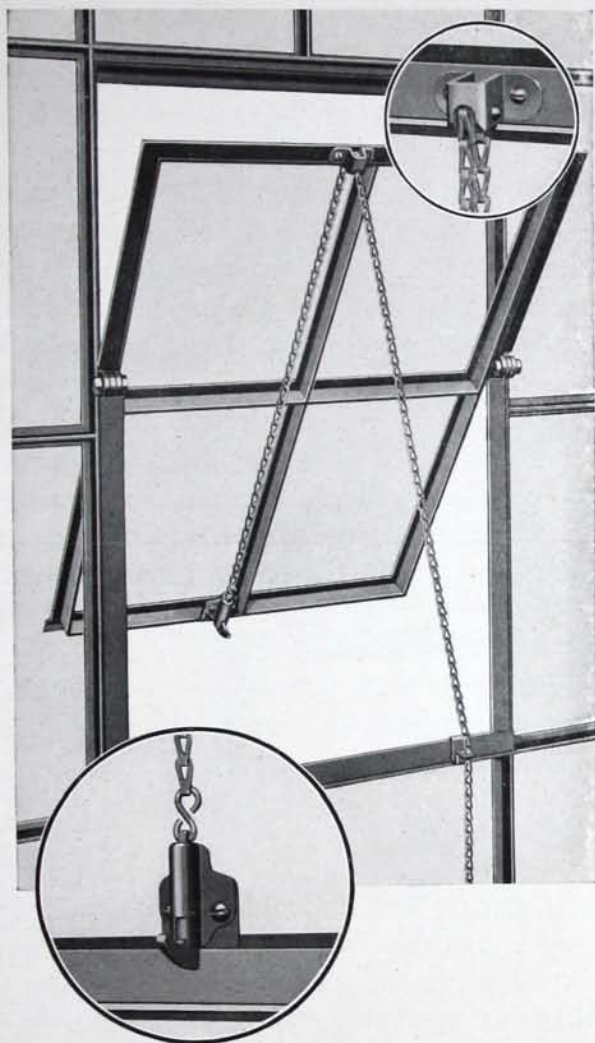
PIVOTED TYPES OF TRUSCON STEEL WINDOWS



The clean-cut, straight, architectural lines of Truscon Steel Windows.

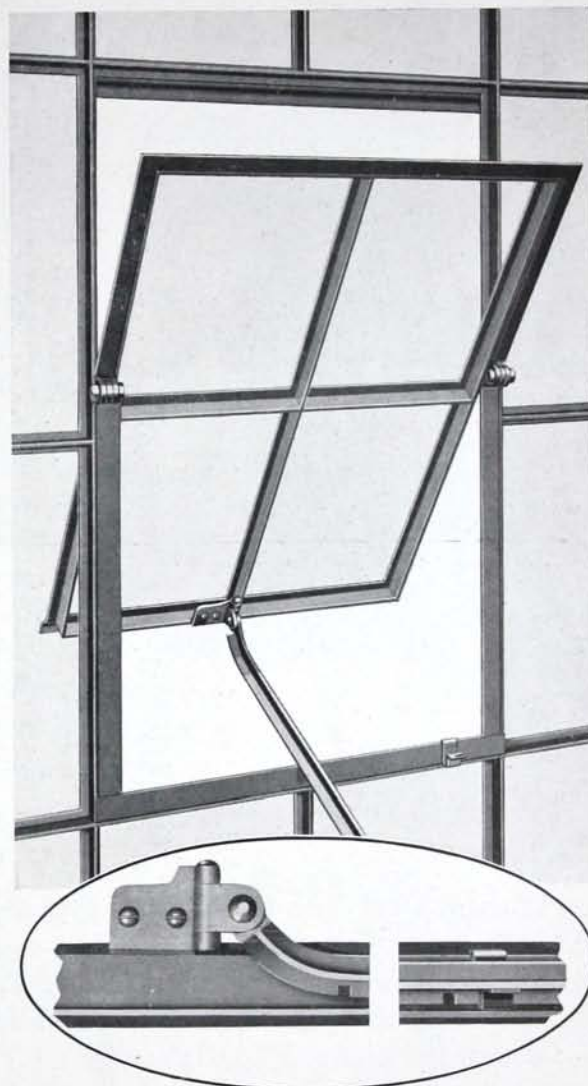


Sectional Perspective. Note perfect weathering and substantial construction.



Spring Latch and Chain Hardware

The spring latch is of strong, substantial, steel construction, bolted to a solid rolled steel angle bracket which is securely riveted to the bottom of the ventilator. The roller bracket is also of substantial steel construction, securely bolted to the weathering angle at the top of the ventilator. To hold the ventilator open at any angle, the chain is fastened into a notched cleat bolted to the weathering of the sash frame below the ventilator.



Push Bar Hardware

The push bar hardware consists of a substantial T bar fitted with a strong, heavy, wrought steel hinge, fastened to a solid rolled steel angle bracket which is securely riveted to the ventilator. The lower leg of the T bar is notched to fit over the angle weathering. The T bar is of sufficient length and so notched as to give any desired opening. When the ventilator is closed, the push bar folds back against the sash and securely locks the ventilator. It is designed so as to draw the ventilator tightly closed by a cam action.

For further details of hardware, see pages 27 and 28

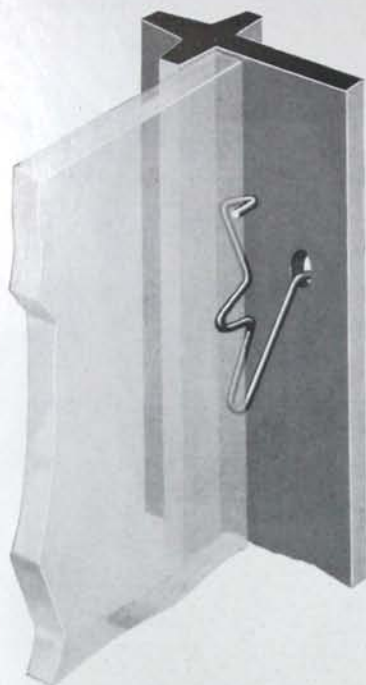
PIVOTED TYPES OF TRUSCON STEEL WINDOWS

Glazing

Pivoted Types of Truscon Steel Windows are glazed from the inside. Each light is held in place by four special spring-steel wire glazing clips. Each clip supports the glass at two points and firmly presses the glass against the putty. These clips have sufficient elasticity to take up the variations in the glass and to absorb the shock of vibration. No special tool is required to place the clips and the glazing operation is easily accomplished, making the cost of glazing Truscon Steel Windows very low.

To insure a satisfactory weathertight installation, it is necessary that the glass be thoroughly bedded in putty spread on the glazing rabbet. The glass must be forced into this bedding putty so that the putty will be forced out, filling completely the entire place between the glass and the steel. The excess putty should be neatly struck off.

After the glass has been thoroughly bedded and fastened in place by means of the four spring steel glazing clips, the glass should be neatly face-puttied.



Putty

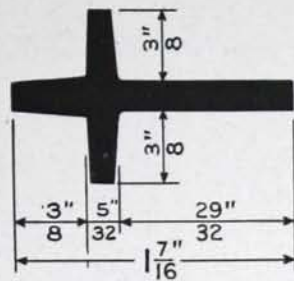
Truscon Steel Sash Putty represents the result of extensive practical tests to determine the best product for metal sash. It glazes easily and smoothly, shows a perfect adhesion for both metal and glass, hardens throughout evenly and uniformly in a comparatively short time to a tough and resistive body, costs no more than any good putty and gives results that are far more efficient and satisfactory.

Glass Sizes in Ventilators

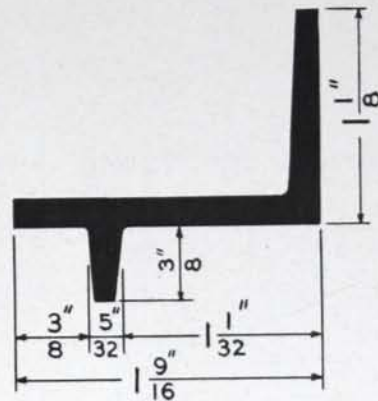
In ordering glass for Truscon Steel Windows, please note that the top and bottom runs of glass in the ventilator are $\frac{7}{8}$ -inch shorter, and the glass along the sides of the ventilator is one inch narrower, than the glass in the remainder of the sash. See accompanying diagram.

$\frac{12}{18}$	$\frac{12}{18}$	$\frac{12}{18}$	$\frac{12}{18}$	$\frac{12}{18}$
$\frac{12}{18}$	$\frac{11}{17\frac{1}{2}}$	$\frac{12}{17\frac{1}{2}}$	$\frac{11}{17\frac{1}{2}}$	$\frac{12}{18}$
$\frac{12}{18}$	$\frac{11}{17\frac{1}{2}}$	$\frac{12}{17\frac{1}{2}}$	$\frac{11}{17\frac{1}{2}}$	$\frac{12}{18}$
$\frac{12}{18}$	$\frac{12}{18}$	$\frac{12}{18}$	$\frac{12}{18}$	$\frac{12}{18}$

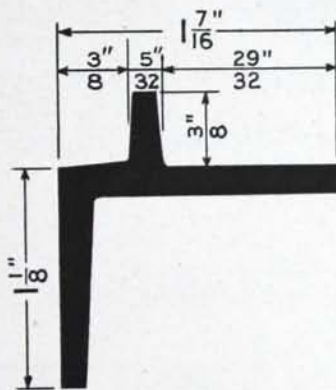
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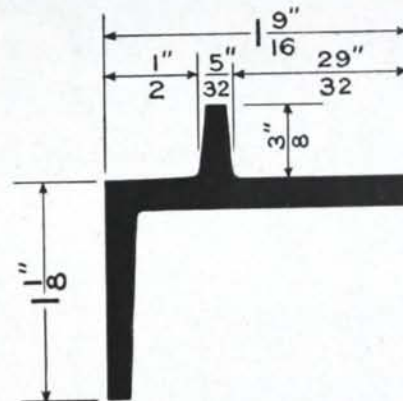
№ 201 SECTION



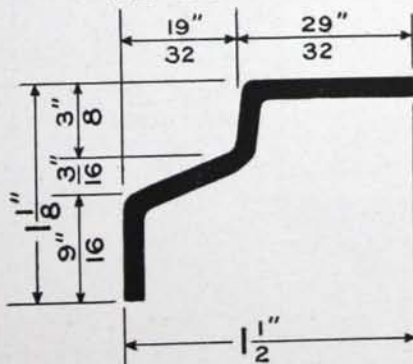
№ 208 SECTION



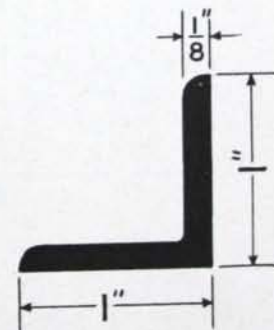
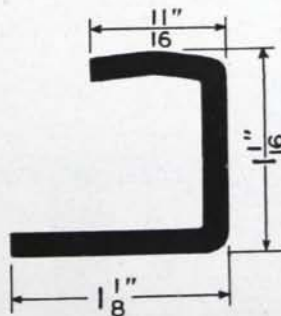
№ 204 SECTION



№ 209 SECTION



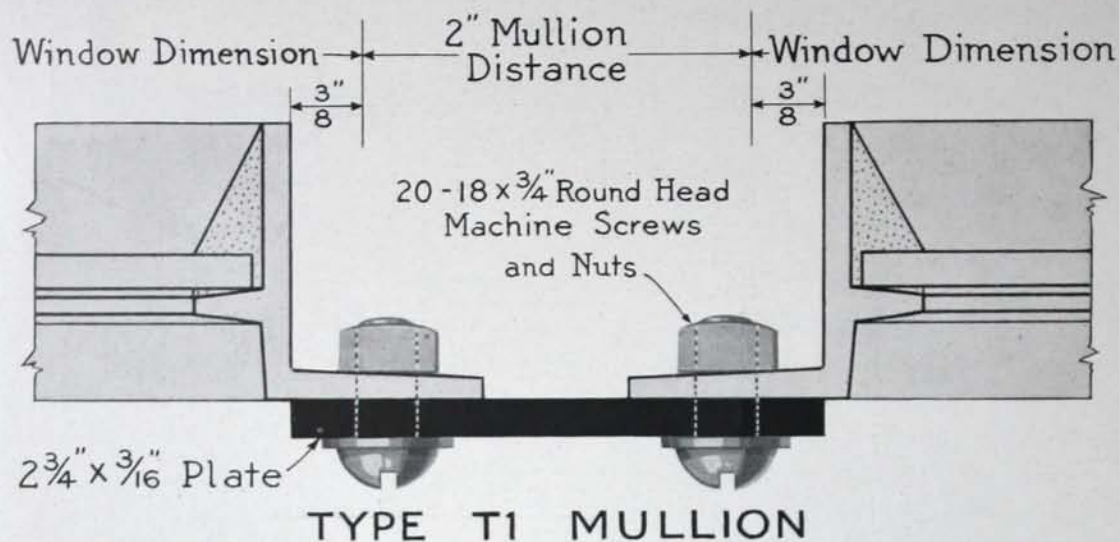
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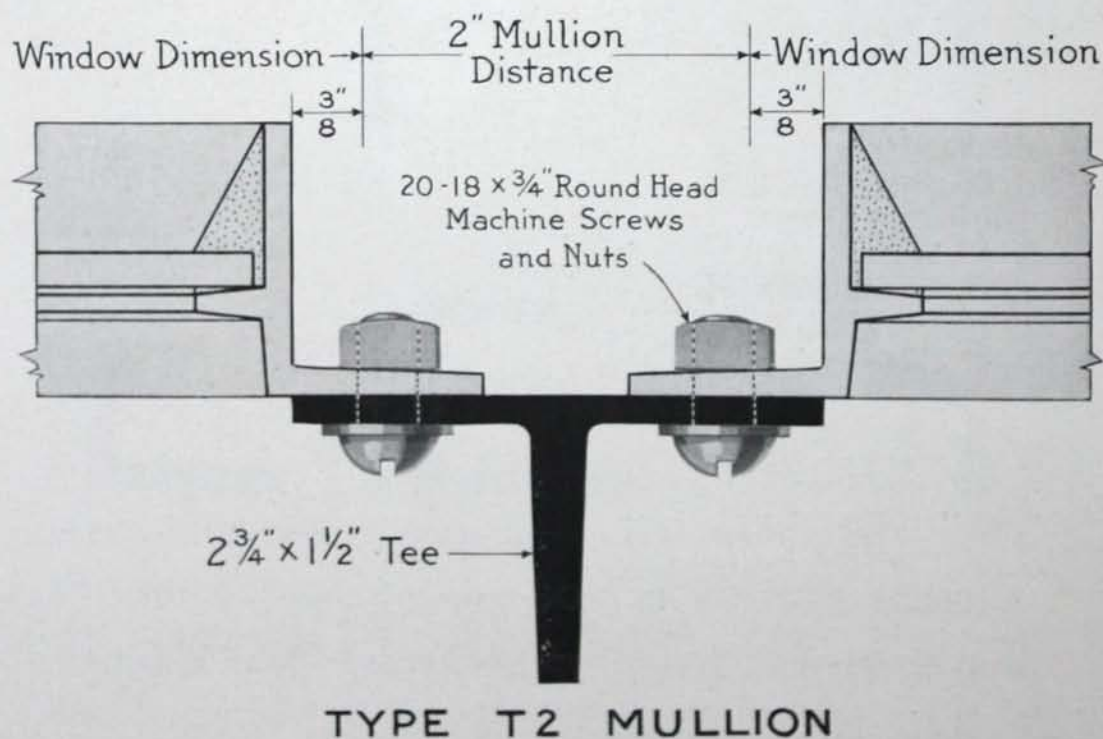
Sections Used in Pivoted Types of Truscon Steel Windows

- No. 201 Section—Interior vertical and horizontal muntin bars.
- No. 204 Section—Vertical and horizontal outside bars.
- No. 205 Section—Weathering section of window frame above ventilator.
- No. 206 Section—Weathering section at both jambs of ventilators.
- No. 207 Section—Angle section of window frame below ventilator.
- No. 208 Section—Upper bar of ventilator.
- No. 209 Section—Lower bar of ventilator.

PIVOTED TYPES OF TRUSCON STEEL WINDOWS

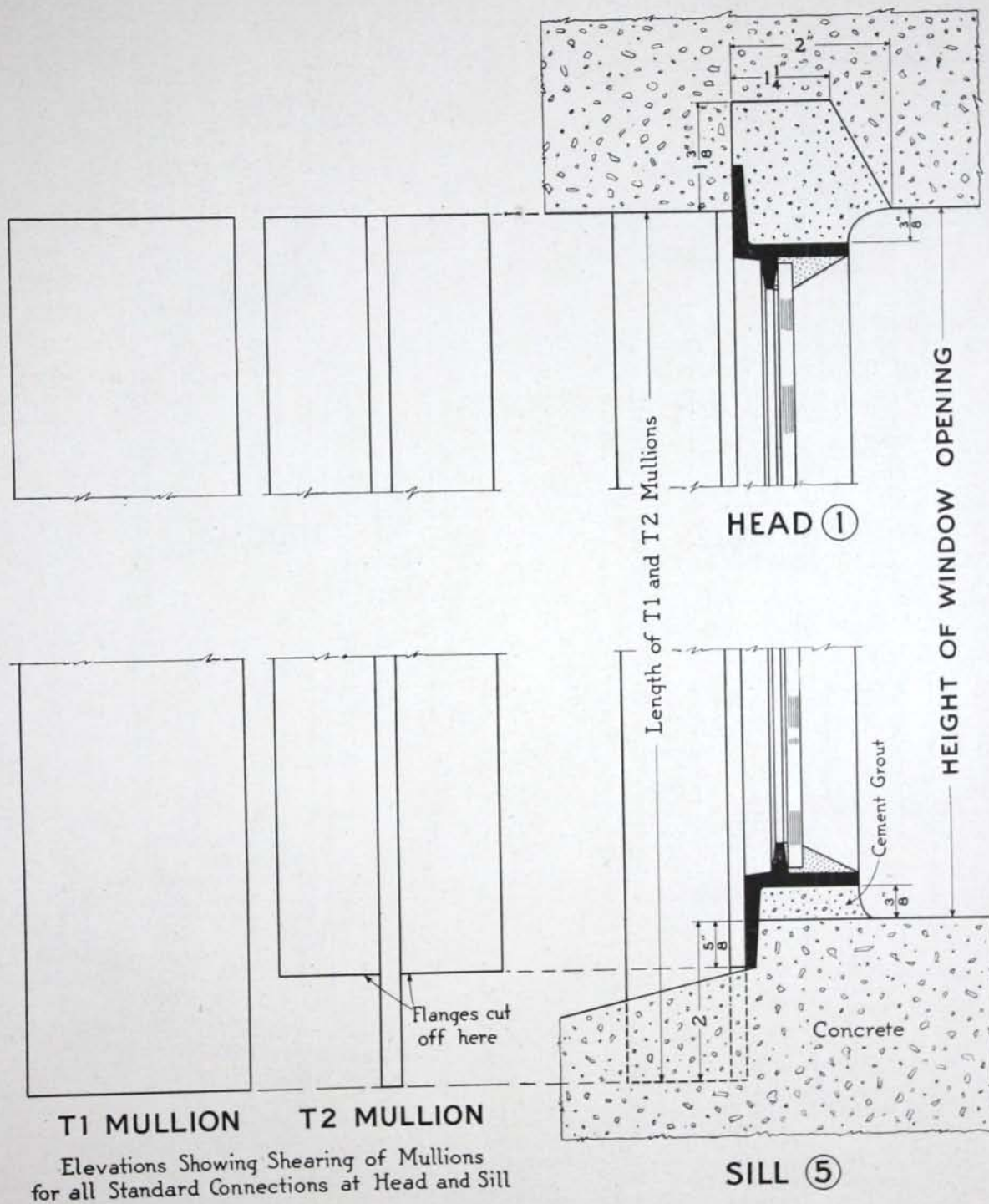


T1 Mullions are used with windows less than 6'3" in height



T2 Mullions are used with windows from 6'3" to 13'10 $\frac{1}{2}$ " in height

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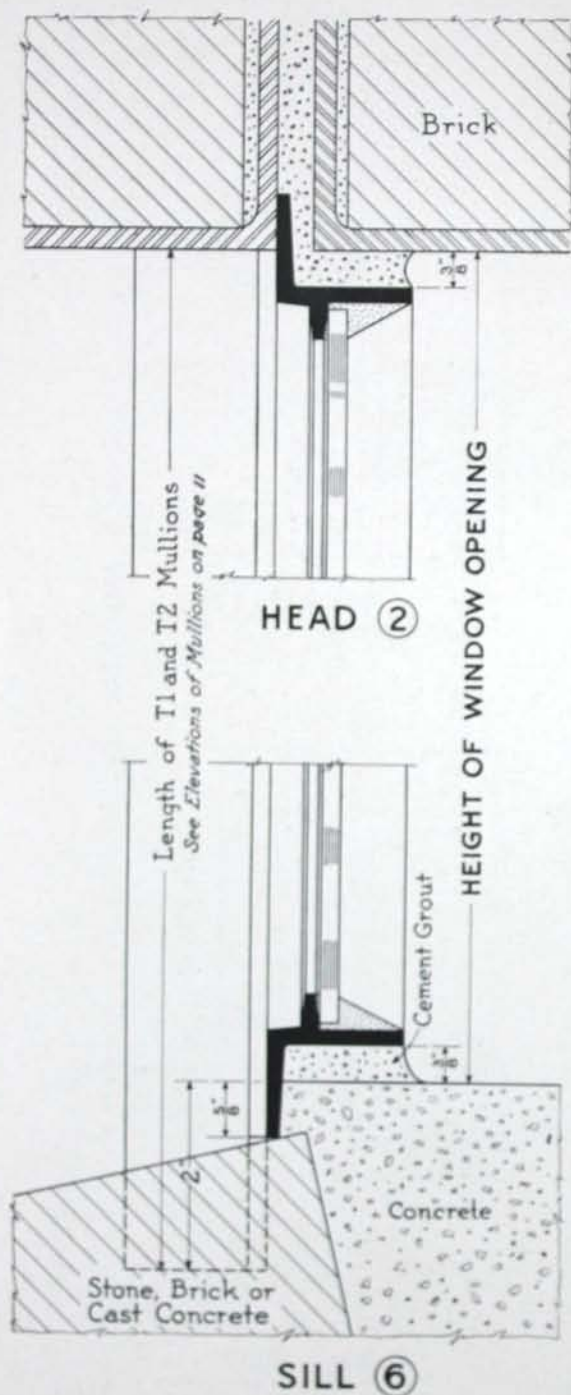


Details of Typical Connections with Concrete Sills and Lintels

1/2 Size

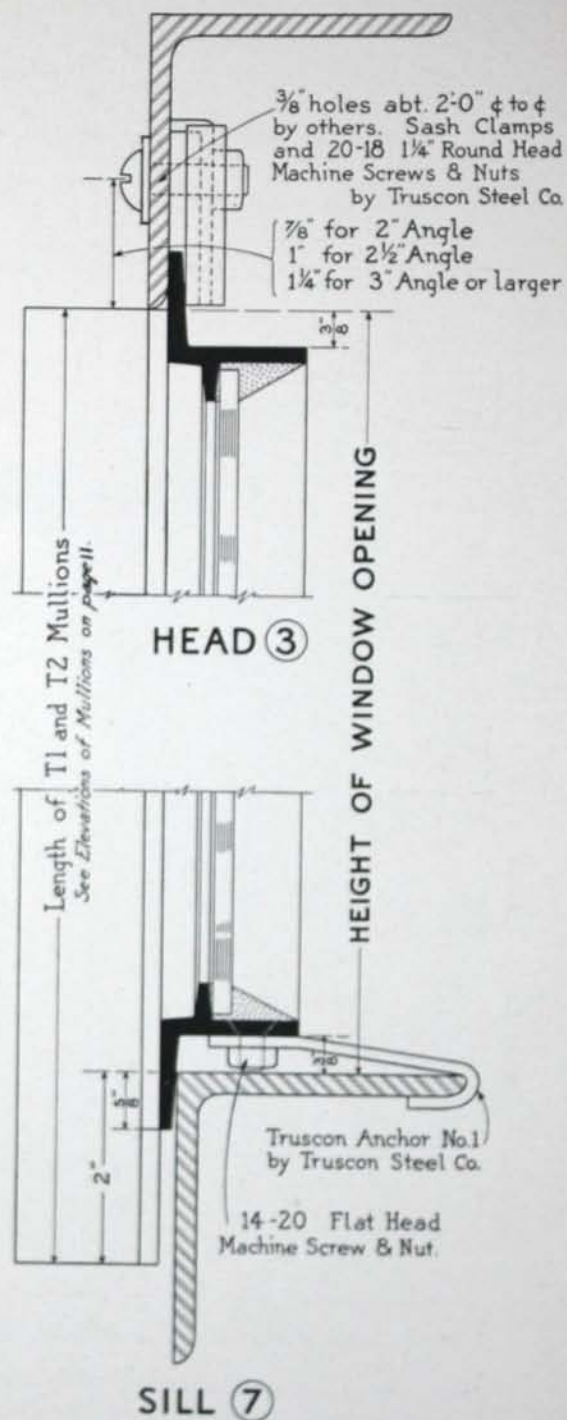
For Details of Jambs, see Page 13

PIVOTED TYPES OF TRUSCON STEEL WINDOWS



Details of Typical Connections with Steel Lintels and Masonry Sills

$\frac{1}{2}$ Size

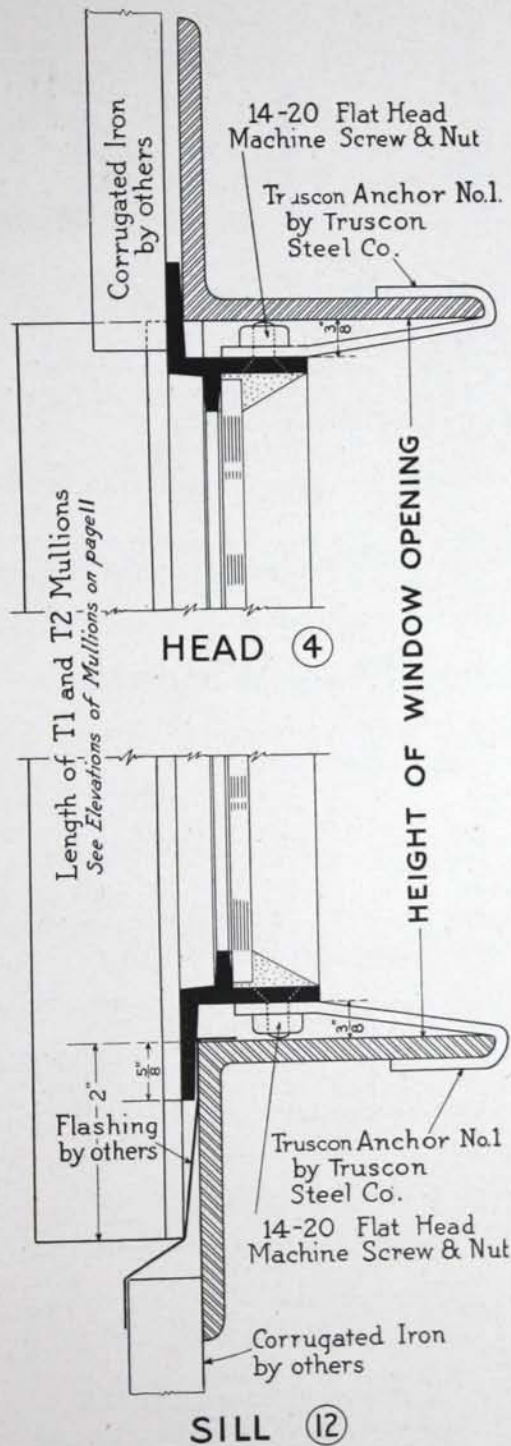


Details of Typical Connection in Structural Steel

$\frac{1}{2}$ Size

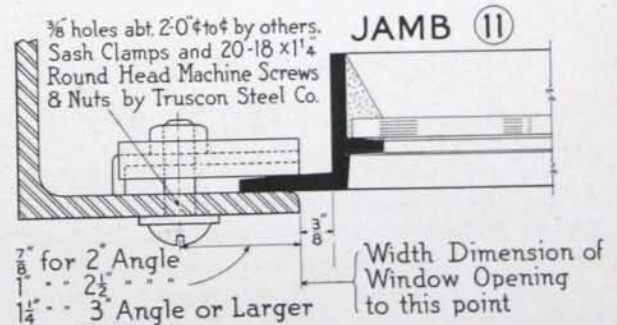
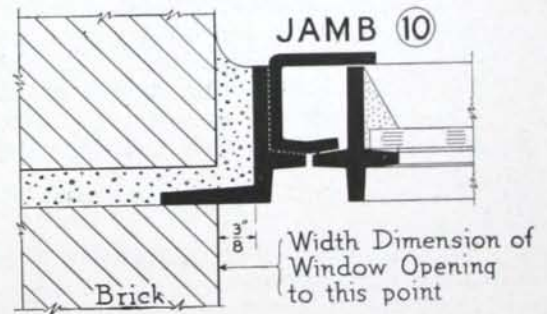
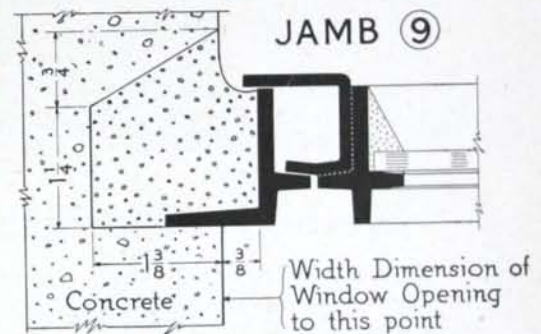
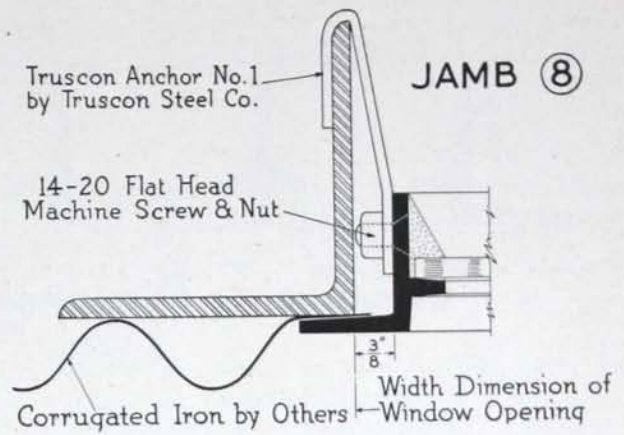
For Details of Jambs, see Page 13

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Details of Typical Connections in Structural Steel with Corrugated Iron Sidings

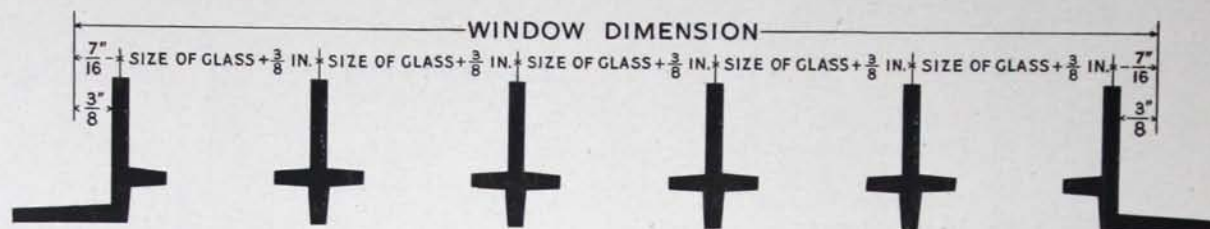
1/2 Size



Details of Typical Connections at Jambs of Concrete, Brick and Steel

1/2 Size

PIVOTED TYPES OF TRUSCON STEEL WINDOWS



Computing Dimensions of Pivoted Windows From Glass Sizes

The width or height dimension of a single window is the same as the width or height of the window opening. These dimensions may be computed from glass sizes by the following formula:

$$W = n \left(s + \frac{3}{8} \right) + \frac{7}{8}$$

where n = number of lights
 s = size of light
 W = width or height of window.

For window opening containing more than one unit add together the dimensions of units as computed above plus the mullion distances.

Method of Designating Truscon Steel Windows

All window units are designated by a number of two figures or more, arranged as follows:

1st Figure—Number of lights wide.

2nd Figure—Number of lights high.

3rd Figure—Number of ventilators in unit.

4th Figure—Number of lights in each ventilator.

5th Figure—Number of lights in height between sill and ventilator.

6th Figure—Number of lights in height between ventilators.

Example: Window 58-2-6-1-2 indicates window five lights wide, eight lights high, containing two ventilators of six lights each, lower ventilator one light above sill, upper ventilator two lights above the lower ventilator.

Windows with one ventilator are indicated by five figures, as no figure is necessary for lights between ventilators.

Unventilated units are indicated by two figures only (number of lights wide and high), as no designation is required for ventilators.

In all cases the glass size must be indicated in addition to the above designations.

Instructions for Ordering Stock and Standard Windows — Pivoted Types

1st. Name. Give name of consignee, owner and name or title of building.

2nd. Shipping Directions. Show clearly the railroad to be shipped over, point of delivery, the date on which shipment is required and complete billing instructions.

3rd. Type of Windows. Give the catalog numbers of the windows required and glass sizes.

4th. Mullions. Give the number, type and length of mullions required, or send sketches showing clearly which windows are to be combined with mullions.

5th. Hardware. Give type of hardware required, whether push bar or spring latch and chain. State if chain is furnished and if so give sill heights so that chains can be ordered proper lengths. For illustrations of hardware, see pages 7, 27 and 28.

6th. Details. Give numbers on details of sills, lintels and jambs, as shown on pages 11 to 13; or send sketches showing details to be used.

7th. Miscellaneous. Give number of clamps and bolts if required.

Warehouse Stock of Truscon Steel Windows

Large quantities of Pivoted Types of Truscon Steel Windows are carried continually in stock. Warehouses are located not only at our Youngstown Plant but in principal cities throughout the country. The use of stock units of Truscon Steel Windows insures for you immediate shipment from warehouse stocks and maximum speed in building construction. Standardize your window openings without sacrificing your architectural effects.

The stock units of Truscon Steel Windows have been selected so as to meet all practical building requirements. These windows include a complete choice of number of lights wide and high and various arrangements of ventilators. In addition, each unit is furnished in two standard glass sizes: 12" x 18" and 14" x 20".

Thirty different types and sixty sizes of Truscon Steel Windows are regularly carried in stock. By combining the units as indicated in the accompanying tables and diagrams, practically all sizes of window openings are accommodated.

Specifications for Stock Windows

TYPES—See diagram, page 16, illustrating types of windows carried in warehouse stock.

SECTIONS—The sections supplied with Stock Windows are shown full size on Page 9.

GLASS SIZES—Units are furnished in two standard glass sizes: 12" x 18" and 14" x 20". Glass is not furnished except as an extra specially noted in contract. (Glass sizes in ventilator are smaller than remainder of lights. See page 8.)

VENTILATORS—Types and locations of ventilators are indicated by crossed dashed lines in diagram, page 16. All ventilators are pivoted horizontally 2" above center.

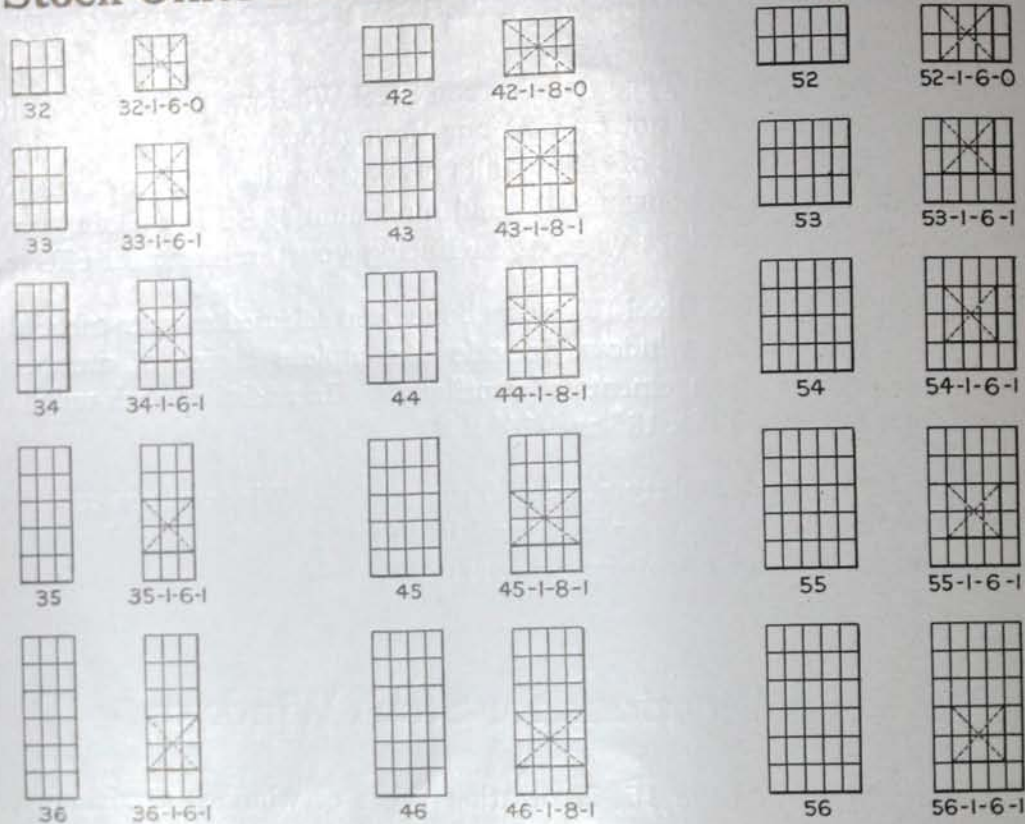
HARDWARE—Either push bar or spring latch and chain hardware (chain furnished only as an extra) is supplied. The hardware is carefully boxed and listed, and shipped separately. It is readily attached in the field by contractor erecting the windows, as all ventilators are punched in shop to receive either type of hardware. (See pages 7, 27 and 28 for illustrations of hardware.)

GLAZING CLIPS—Standard Spring Steel Clips are furnished with the windows, four to each light. See page 8 for method of glazing.

MULLIONS—Types T1 and T2 are supplied where required and included in contract. See page 10 for details of mullions.

PIVOTED TYPES OF TRUSCON STEEL WINDOWS

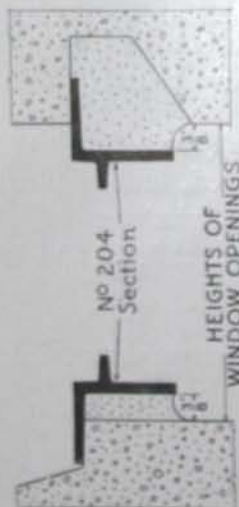
Stock Units of Pivoted Truscon Steel Windows



Glass Sizes: 12" x 18" and 14" x 20". Ventilators (indicated by crossed dashed lines) are horizontally pivoted 2" above center.

IMPORTANT NOTE

Stock units are made in two glass sizes, 12" x 18" and 14" x 20". 12" widths of glass can be used only with 18" heights of glass. 14" widths of glass can be used only with 20" heights of glass. For any one window opening, 12" x 18" glass sizes cannot be combined with 14" x 20".



Heights of Window Openings for Stock Units of Pivoted Windows

TABLE NO. 1A
12"x18" GLASS

Height of Window Opening	No. of Lights High
3'-1 1/8"	2
4'-8"	3
6'-2 3/8"	4
7'-8 3/8"	5
9'-3 1/8"	6

TABLE NO. 2A
14"x20" GLASS

Height of Window Opening	No. of Lights High
3'-5 5/8"	2
5'-2"	3
6'-10 3/8"	4
8'-6 3/4"	5
10'-3 1/8"	6

For Widths of Window Openings, see next page

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Widths of Window Openings for Stock Units of Pivoted Types of Truscon Windows

Using Various Combinations of Stock Units with Mullions

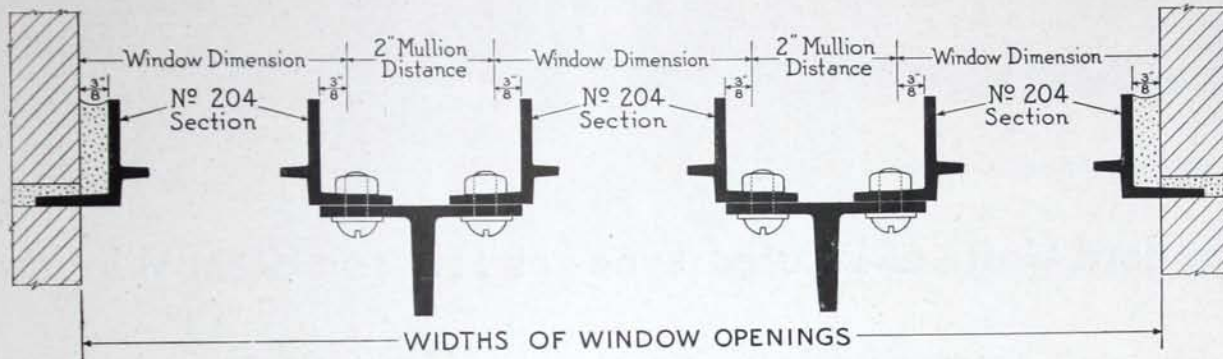


TABLE NO. 1—12" x 18" GLASS

Width of Window Opening	Total No. of Lts. Wide	No. of units	Number of Lights Wide						Mullion Distance
			1st Unit	2nd Unit	3rd Unit	4th Unit	5th Unit	6th Unit	
3'-2"	3	1	3						
4'-2 ³ / ₈ "	4	1	4						
5'-2 ³ / ₄ "	5	1	5						
6'-6"	6	2	3	3					2"
8'-6 ³ / ₄ "	8	2	4	4					2"
9'-10"	9	3	3	3	3				2"
10'-7 ¹ / ₂ "	10	2	5	5					2"
10'-10 ³ / ₈ "	10	3	3	4	3				2"
11'-10 ³ / ₄ "	11	3	3	5	3				2"
11'-10 ³ / ₄ "	11	3	4	3	4				2"
12'-11 ¹ / ₈ "	12	3	4	4	4				2"
13'-2"	12	4	3	3	3	3			2"
13'-11 ¹ / ₂ "	13	3	4	5	4				2"
13'-11 ¹ / ₂ "	13	3	5	3	5				2"
14'-11 ⁷ / ₈ "	14	3	5	4	5				2"
15'-2 ³ / ₄ "	14	4	3	4	4	3			2"
16'-0 ¹ / ₄ "	15	3	5	5	5				2"
16'-6"	15	5	3	3	3	3	3		2"
17'-3 ¹ / ₂ "	16	4	4	4	4	4			2"
17'-6 ³ / ₈ "	16	5	3	3	4	3	3		2"
18'-6 ³ / ₄ "	17	5	3	4	3	4	3		2"
18'-6 ³ / ₄ "	17	5	3	3	5	3	3		2"
19'-4 ¹ / ₄ "	18	4	4	5	5	4			2"
19'-7 ¹ / ₈ "	18	5	3	4	4	4	3		2"
19'-10"	18	6	3	3	3	3	3	3	2"
20'-7 ¹ / ₂ "	19	5	5	3	3	3	5		2"
20'-7 ¹ / ₂ "	19	5	4	4	3	4	4		2"
21'-5"	20	4	5	5	5	5			2"
21'-7 ⁷ / ₈ "	20	5	4	4	4	4	4		2"
21'-10 ³ / ₄ "	20	6	3	3	4	4	3	3	2"
22'-8 ¹ / ₂ "	21	5	4	4	5	4	4		2"
22'-8 ¹ / ₂ "	21	5	3	5	5	5	3		2"
23'-8 ⁵ / ₈ "	22	5	4	5	4	5	4		2"
23'-11 ¹ / ₂ "	22	6	3	4	4	4	4	3	2"
23'-11 ¹ / ₂ "	22	6	3	3	5	5	3	3	2"
24'-9"	23	5	4	5	5	5	4		2"
24'-9"	23	5	5	5	3	5	5		2"
25'-9 ³ / ₈ "	24	5	5	5	4	5	5		2"
26'-0 ¹ / ₄ "	24	6	4	4	4	4	4	4	2"

TABLE NO. 2—14" x 20" GLASS

Width of Window Opening	Total No. of Lts. Wide	No. of units	Number of Lights Wide						Mullion Distance
			1st Unit	2nd Unit	3rd Unit	4th Unit	5th Unit	6th Unit	
3'-8"	3	1	3						
4'-10 ³ / ₈ "	4	1	4						
6'-0 ³ / ₄ "	5	1	5						
7'-6"	6	2	3	3					2"
9'-10 ³ / ₄ "	8	2	4	4					2"
11'-4"	9	3	3	3	3				2"
12'-3 ¹ / ₂ "	10	2	5	5					2"
12'-6 ³ / ₈ "	10	3	3	4	3				2"
13'-8 ³ / ₄ "	11	3	3	5	3				2"
13'-8 ³ / ₄ "	11	3	4	3	4				2"
14'-11 ¹ / ₈ "	12	3	4	4	4				2"
15'-2"	12	4	3	3	3	3			2"
16'-1 ¹ / ₂ "	13	3	4	5	4				2"
16'-1 ¹ / ₂ "	13	3	5	3	5				2"
17'-3 ⁷ / ₈ "	14	3	5	4	5				2"
17'-6 ³ / ₄ "	14	4	3	4	4	3			2"
18'-6 ¹ / ₄ "	15	3	5	5	5				2"
19'-0"	15	5	3	3	3	3	3		2"
19'-11 ¹ / ₂ "	16	4	4	4	4	4			2"
20'-2 ³ / ₈ "	16	5	3	3	4	3	3		2"
21'-4 ³ / ₄ "	17	5	3	3	5	3	3		2"
21'-4 ³ / ₄ "	17	5	3	4	3	4	3		2"
22'-4 ¹ / ₄ "	18	4	4	5	5	4			2"
22'-7 ¹ / ₈ "	18	5	3	4	4	4	3		2"
22'-10"	18	6	3	3	3	3	3	3	2"
23'-9 ¹ / ₂ "	19	5	5	3	3	3	5		2"
23'-9 ¹ / ₂ "	19	5	4	4	3	4	4		2"
24'-9"	20	4	5	5	5	5			2"
24'-11 ⁷ / ₈ "	20	5	4	4	4	4	4		2"
25'-2 ³ / ₄ "	20	6	3	3	4	4	3	3	2"
26'-2 ¹ / ₄ "	21	5	4	4	5	4	4		2"
26'-2 ¹ / ₄ "	21	5	3	5	5	5	3		2"
27'-4 ⁵ / ₈ "	22	5	4	5	4	5	4		2"
27'-7 ¹ / ₂ "	22	6	3	4	4	4	4	3	2"
27'-7 ¹ / ₂ "	22	6	3	3	5	5	3	3	2"
28'-7"	23	5	4	5	5	5	4		2"
28'-7"	23	5	5	5	3	5	5		2"
29'-9 ³ / ₈ "	24	5	5	5	4	5	5		2"
30'-0 ¹ / ₄ "	24	6	4	4	4	4	4	4	2"

For Heights of Window Openings, see page 16

PIVOTED TYPES OF TRUSCON STEEL WINDOWS

Standard Units of Pivoted Types of Truscon Steel Windows

Large quantities of finished ventilators and machined muntin bars are carried in stock ready to be made up into Standard Units. These are stocked in two glass sizes: 12" x 18" and 14" x 20". Ventilators are stocked in three sizes: 4, 6 and 8 lights. The standard members are assembled to meet the particular requirements of each building operation.

Practically any size of window opening and arrangement of ventilation can be obtained by the use of Standard Units of Truscon Steel Windows. The standardization of manufacturing methods assures promptness in shipment and economy in production. The highest quality of design, material and workmanship obtain throughout in the manufacture of these windows.

The various types of Standard Units, showing the arrangements of lights and ventilation, are illustrated on pages 20 and 21.

Tables of dimensions for combinations of units for window openings are shown on pages 22 and 23.

For details of connections, see pages 11 to 13.

For illustrations of hardware, see pages 7, 27 and 28.

For details of mullions, see page 10.

For specifications, see next page.

Specifications for Standard Units of Pivoted Windows

TYPES—See diagrams, pages 20 and 21, illustrating types of Standard Units of Pivoted Truscon Windows which are obtainable.

SECTIONS—The sections supplied with Standard Pivoted Windows are shown in full size on page 9.

GLASS SIZES—Standard Pivoted Windows are furnished in two glass sizes: 12" x 18" and 14" x 20". Glass is not furnished except as an extra especially noted in contract. Glass in ventilators is smaller than the remainder of lights in windows, as indicated on page 8.

VENTILATORS—Types and locations of ventilators are indicated by crossed-dashed lines in diagrams on pages 20 and 21. All ventilators are pivoted horizontally 2" above center.

HARDWARE—Either push bar or spring latch and chain hardware (chain furnished only as an extra) is supplied. The hardware is carefully boxed and listed and shipped separately. It is readily attached in the field by contractor erecting the windows. All ventilators are punched in shop to receive either type of hardware. See pages 7, 27 and 28 for illustrations of hardware.

GLAZING CLIPS—Standard spring steel clips are furnished with sash, four to each light. See page 8 for method of glazing.

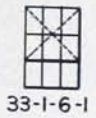
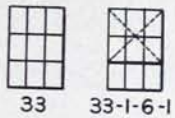
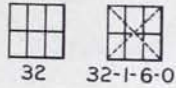
MULLIONS—Types T1 and T2 are supplied where required and included in contract. See page 10 for details of mullions.

CAUTION—Any departure from above specifications changes windows from Standard Units, delays time of shipment and increases cost.

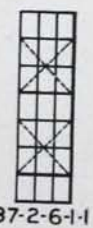
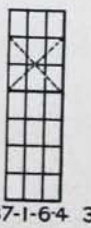
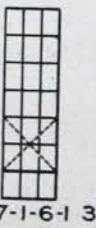
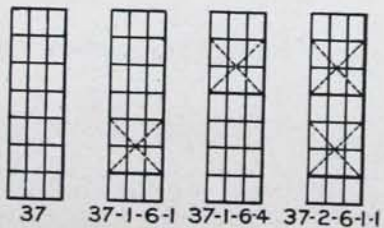
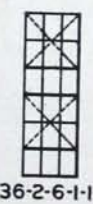
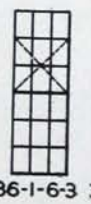
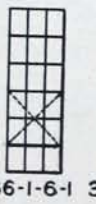
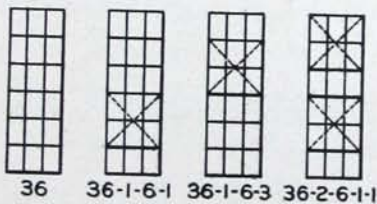
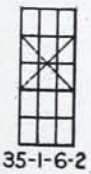
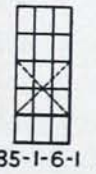
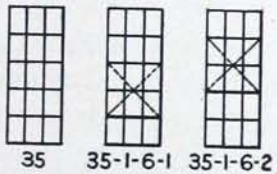
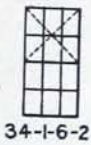
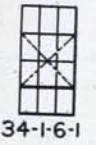
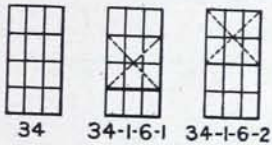
PIVOTED TYPES OF TRUSCON STEEL WINDOWS

Standard Units of Pivoted Types of Truscon Steel Windows

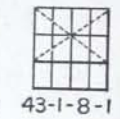
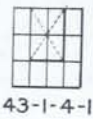
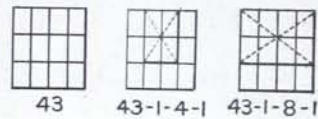
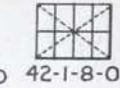
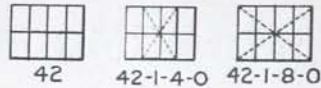
Three Lights Wide



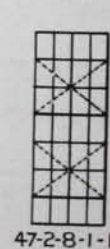
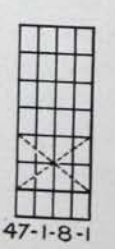
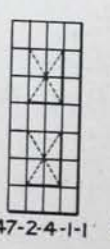
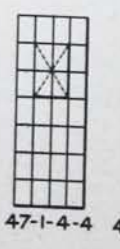
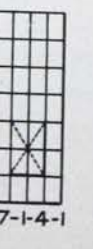
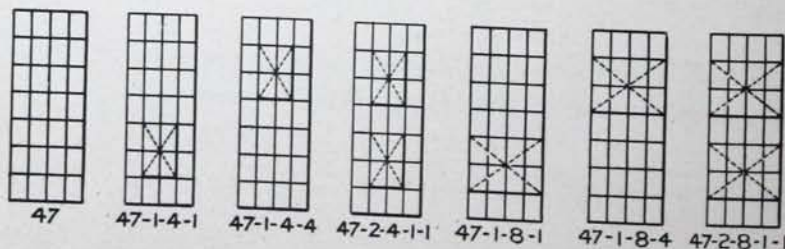
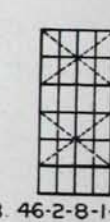
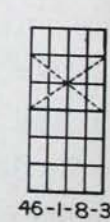
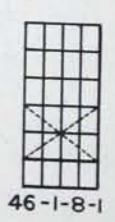
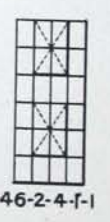
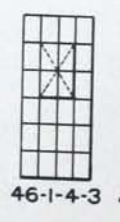
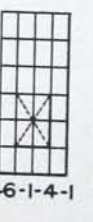
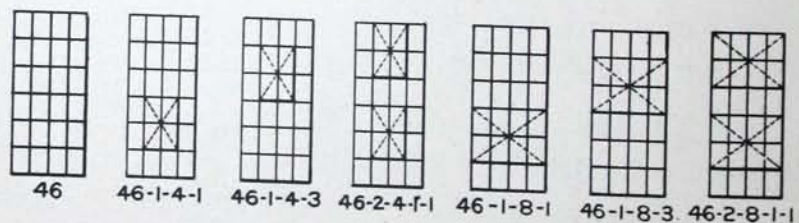
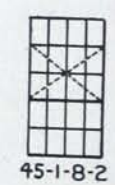
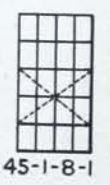
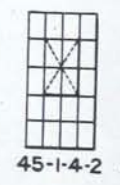
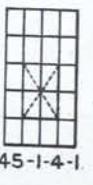
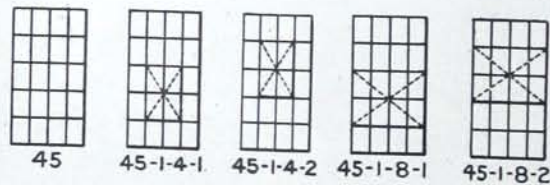
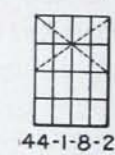
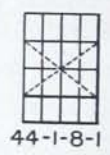
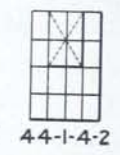
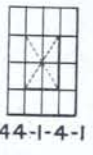
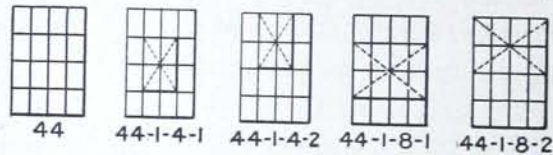
GLASS SIZES
12" X 18"
AND
14" X 20"



Four Lights Wide



GLASS SIZES
12" X 18"
AND
14" X 20"

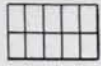


Ventilators (indicated by crossed dashed lines) are horizontally pivoted 2" above center.

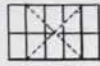
TRUSCON STEEL COMPANY

Standard Units of Pivoted Types of Truscon Steel Windows

Five Lights Wide



52



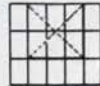
52-1-6-0

GLASS SIZES

12" X 18"
AND
14" X 20"



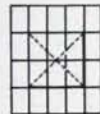
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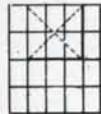
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54



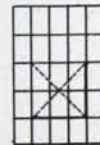
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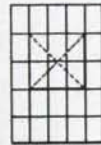
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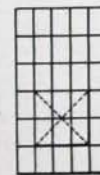
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56



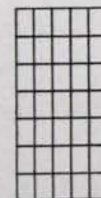
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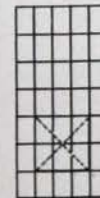
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56-2-6-1-1



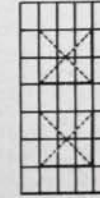
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57-1-6-1



57-1-6-4

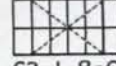


57-2-6-1-1

Six Lights Wide



62



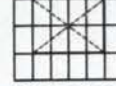
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GLASS SIZES

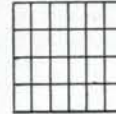
12" X 18"
AND
14" X 20"



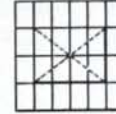
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63-1-8-1



64



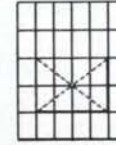
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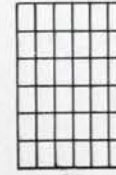
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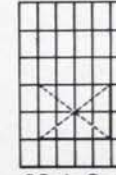
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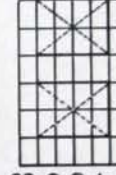
66



66-1-8-1



66-1-8-3



66-2-8-1-1

Ventilators (indicated by crossed dashed lines) are horizontally pivoted 2" above center.

PIVOTED TYPES OF TRUSCON STEEL WINDOWS

Widths of Window Openings for Standard Units of Pivoted Types of Truscon Steel Windows

Using Various Combinations of Standard Units With Mullions

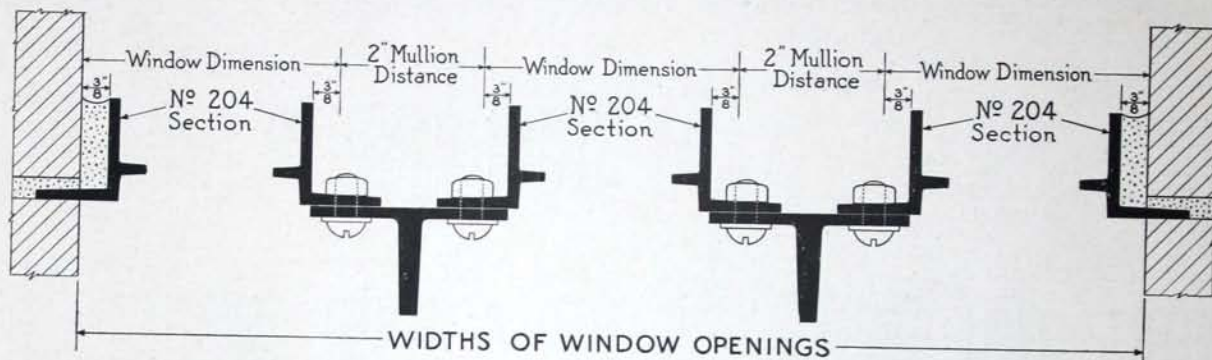


TABLE NO. 3—12" x 18" GLASS

Width of Window Opening	Total No. of Lts. Wide	No. of units	Number of Lights Wide						Mullion Distance
			1st Unit	2nd Unit	3rd Unit	4th Unit	5th Unit	6th Unit	
3'-2"	3	1	3						2"
4'-2 ³ / ₈ "	4	1	4						2"
5'-2 ³ / ₄ "	5	1	5						2"
6'-3 ¹ / ₈ "	6	1	6						2"
6'-6"	6	2	3	3					2"
8'-6 ³ / ₄ "	8	2	4	4					2"
9'-10"	9	3	3	3	3				2"
10'-7 ¹ / ₂ "	10	2	5	5					2"
10'-10 ³ / ₈ "	10	3	3	4	3				2"
11'-10 ³ / ₄ "	11	3	4	3	4				2"
11'-10 ³ / ₄ "	11	3	3	5	3				2"
12'-8 ¹ / ₄ "	12	2	6	6					2"
12'-11 ¹ / ₈ "	12	3	4	4	4				2"
13'-2"	12	4	3	3	3	3			2"
13'-11 ¹ / ₂ "	13	3	5	3	5				2"
13'-11 ¹ / ₂ "	13	3	4	5	4				2"
14'-11 ⁷ / ₈ "	14	3	5	4	5				2"
14'-11 ⁷ / ₈ "	14	3	4	6	4				2"
15'-2 ³ / ₄ "	14	4	3	4	4	3			2"
16'-0 ¹ / ₄ "	15	3	5	5	5				2"
16'-6"	15	5	3	3	3	3	3		2"
17'-0 ⁵ / ₈ "	16	3	6	4	6				2"
17'-0 ⁵ / ₈ "	16	3	5	6	5				2"
17'-3 ¹ / ₂ "	16	4	4	4	4	4			2"
17'-6 ³ / ₈ "	16	5	3	3	4	3	3		2"
18'-1"	17	3	6	5	6				2"
18'-6 ³ / ₄ "	17	5	3	3	5	3	3		2"
18'-6 ³ / ₄ "	17	5	3	4	3	4	3		2"

Continued on next page

TABLE NO. 4—14" x 20" GLASS

Width of Window Opening	Total No. of Lts. Wide	No. of units	Number of Lights Wide						Mullion Distance
			1st Unit	2nd Unit	3rd Unit	4th Unit	5th Unit	6th Unit	
3'-8"	3	1	3						2"
4'-10 ³ / ₈ "	4	1	4						2"
6'-0 ³ / ₄ "	5	1	5						2"
7'-3 ¹ / ₈ "	6	1	6						2"
7'-6"	6	2	3	3					2"
9'-10 ³ / ₄ "	8	2	4	4					2"
11'-4"	9	3	3	3	3				2"
12'-3 ¹ / ₂ "	10	2	5	5					2"
12'-6 ³ / ₈ "	10	3	3	4	3				2"
13'-8 ³ / ₄ "	11	3	4	3	4				2"
13'-8 ³ / ₄ "	11	3	3	5	3				2"
14'-8 ¹ / ₄ "	12	2	6	6					2"
14'-11 ¹ / ₈ "	12	3	4	4	4				2"
15'-2"	12	4	3	3	3	3			2"
16'-1 ¹ / ₂ "	13	3	5	3	5				2"
16'-1 ¹ / ₂ "	13	3	4	5	4				2"
17'-3 ⁷ / ₈ "	14	3	5	4	5				2"
17'-3 ⁷ / ₈ "	14	3	4	6	4				2"
17'-6 ³ / ₄ "	14	4	3	4	4	3			2"
18'-6 ¹ / ₄ "	15	3	5	5	5				2"
19'-0"	15	5	3	3	3	3	3		2"
19'-8 ⁵ / ₈ "	16	3	6	4	6				2"
19'-8 ⁵ / ₈ "	16	3	5	6	5				2"
19'-11 ¹ / ₂ "	16	4	4	4	4	4			2"
20'-2 ³ / ₄ "	16	5	3	3	4	3	3		2"
20'-11"	17	3	6	5	6				2"
21'-4 ³ / ₄ "	17	5	3	3	5	3	3		2"
21'-4 ³ / ₄ "	17	5	3	4	3	4	3		2"

Continued on next page

TRUSCON STEEL COMPANY

Widths of Window Openings for Standard Units—Continued

TABLE NO. 3—12" x 18" GLASS

Width of Window Opening	Total No. of Lts. Wide	No. of units	Number of Lights Wide						Mul-lion Dis-tance
			1st Unit	2nd Unit	3rd Unit	4th Unit	5th Unit	6th Unit	
19'-1 $\frac{3}{8}$ "	18	3	6	6	6				2"
19'-4 $\frac{1}{4}$ "	18	4	4	5	5	4			2"
19'-7 $\frac{1}{8}$ "	18	5	3	4	4	4	3		2"
19'-10"	18	6	3	3	3	3	3	3	2"
20'-7 $\frac{1}{2}$ "	19	5	3	5	3	5	3		2"
20'-7 $\frac{1}{2}$ "	19	5	4	4	3	4	4		2"
21'-5"	20	4	5	5	5	5			2"
21'-7 $\frac{7}{8}$ "	20	5	4	4	4	4	4		2"
21'-10 $\frac{3}{4}$ "	20	6	3	3	4	4	3	3	2"
22'-8 $\frac{1}{4}$ "	21	5	4	4	5	4	4		2"
22'-8 $\frac{1}{4}$ "	21	5	3	5	5	5	3		2"
23'-5 $\frac{3}{4}$ "	22	4	5	6	6	5			2"
23'-8 $\frac{5}{8}$ "	22	5	4	5	4	5	4		2"
23'-8 $\frac{5}{8}$ "	22	5	4	4	6	4	4		2"
23'-11 $\frac{1}{2}$ "	22	6	3	3	5	5	3	3	2"
23'-11 $\frac{1}{2}$ "	22	6	3	4	4	4	4	3	2"
24'-9"	23	5	4	5	5	5	4		2"
24'-9"	23	5	5	5	3	5	5		2"
25'-6 $\frac{1}{2}$ "	24	4	6	6	6	6			2"
25'-9 $\frac{3}{8}$ "	24	5	5	5	4	5	5		2"
25'-9 $\frac{3}{8}$ "	24	5	4	6	4	6	4		2"
26'-0 $\frac{1}{4}$ "	24	6	4	4	4	4	4	4	2"

TABLE NO. 4—14" x 20" GLASS

Width of Window Opening	Total No. of Lts. Wide	No. of units	Number of Lights Wide						Mul-lion Dis-tance
			1st Unit	2nd Unit	3rd Unit	4th Unit	5th Unit	6th Unit	
22'-1 $\frac{3}{8}$ "	18	3	6	6	6				2"
22'-4 $\frac{1}{4}$ "	18	4	4	5	5	4			2"
22'-7 $\frac{1}{8}$ "	18	5	3	4	4	4	3		2"
22'-10"	18	6	3	3	3	3	3	3	2"
23'-9 $\frac{1}{2}$ "	19	5	3	5	3	5	3		2"
23'-9 $\frac{1}{2}$ "	19	5	4	4	3	4	4		2"
24'-9"	20	4	5	5	5	5			2"
24'-11 $\frac{7}{8}$ "	20	5	4	4	4	4	4		2"
25'-2 $\frac{3}{4}$ "	20	6	3	3	4	4	3	3	2"
26'-2 $\frac{1}{4}$ "	21	5	4	4	5	4	4		2"
26'-2 $\frac{1}{4}$ "	21	5	3	5	5	5	3		2"
27'-1 $\frac{3}{4}$ "	22	4	5	6	6	5			2"
27'-4 $\frac{5}{8}$ "	22	5	4	5	4	5	4		2"
27'-4 $\frac{5}{8}$ "	22	5	4	4	6	4	4		2"
27'-7 $\frac{1}{2}$ "	22	6	3	3	5	5	3	3	2"
27'-7 $\frac{1}{2}$ "	22	6	3	4	4	4	4	3	2"
28'-7"	23	5	4	5	5	5	4		2"
28'-7"	23	5	5	5	3	5	5		2"
29'-6 $\frac{1}{2}$ "	24	4	6	6	6	6			2"
29'-9 $\frac{3}{8}$ "	24	5	4	6	4	6	4		2"
29'-9 $\frac{3}{8}$ "	24	5	5	5	4	5	5		2"
30'-0 $\frac{1}{4}$ "	24	6	4	4	4	4	4	4	2"

IMPORTANT NOTE

Standard units are made in two glass sizes, 12" x 18" and 14" x 20". 12" widths of glass can be used only with 18" heights of glass. 14" widths of glass can be used only with 20" heights of glass. For any one window opening, 12" x 18" glass sizes cannot be combined with 14" x 20".

Heights of Window Openings for Standard Units of Pivoted Types of Truscon Steel Windows

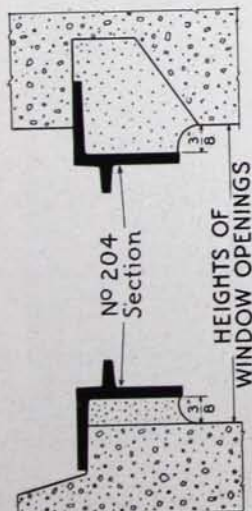


TABLE NO. 3A
12" x 18" GLASS

Height of Window Opening	No. of Lights High
3'-1 $\frac{5}{8}$ "	2
4'-8"	3
6'-2 $\frac{3}{8}$ "	4
7'-8 $\frac{3}{4}$ "	5
9'-3 $\frac{1}{8}$ "	6
10'-9 $\frac{1}{2}$ "	7

TABLE NO. 4A
14" x 20" GLASS

Height of Window Opening	No. of Lights High
3'-5 $\frac{5}{8}$ "	2
5'-2"	3
6'-10 $\frac{3}{8}$ "	4
8'-6 $\frac{3}{4}$ "	5
10'-3 $\frac{1}{8}$ "	6
11'-11 $\frac{1}{2}$ "	7

PIVOTED TYPES OF TRUSCON STEEL WINDOWS

Horizontal Mullion

Used where units of Truscon Pivoted Windows are placed above each other. Horizontal Mullion is **not** furnished by Truscon Steel Co.

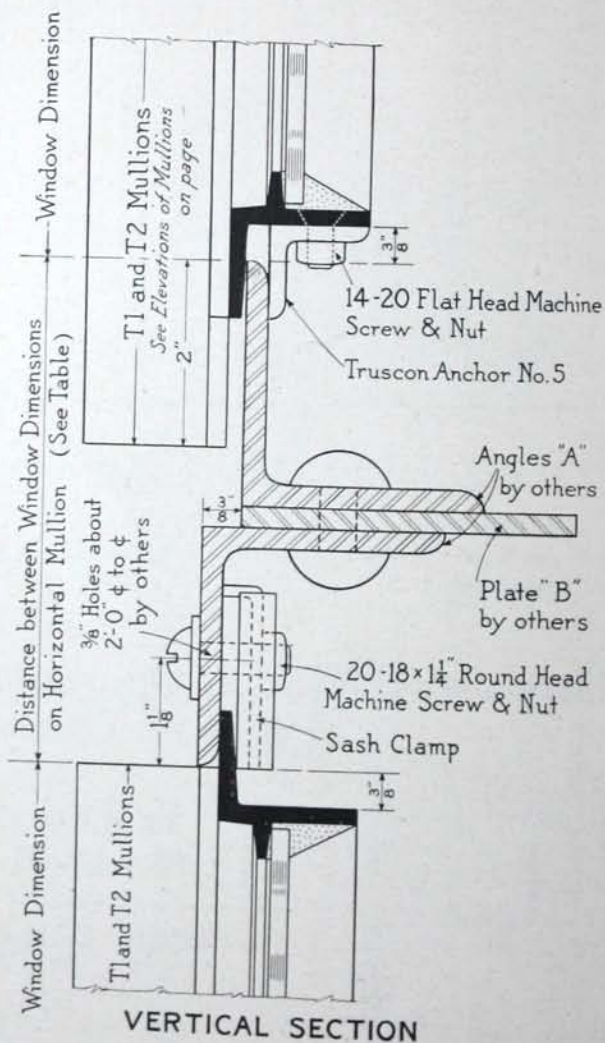
Sizes and Dimensions of Horizontal Mullion for Various Widths of Openings

12" x 18" GLASS

Width of Window Opening	Total No. of Lights Wide	Angles "A"	Plate "B"	Distance Between Window Dimensions
6'-6"	6	2 1/2" x 2 1/2" x 3/16"	None	5"
8'-6 3/4"	8	2 1/2" x 2 1/2" x 3/16"	None	5"
9'-10"	9	2 1/2" x 2 1/2" x 3/16"	None	5"
10'-10 3/8"	10	2 1/2" x 2 1/2" x 3/16"	None	5"
11'-10 3/4"	11	2 1/2" x 2 1/2" x 3/16"	4" x 3/16"	5 1/4"
12'-11 1/8"	12	2 1/2" x 2 1/2" x 3/16"	5" x 3/16"	5 1/4"
13'-11 1/2"	13	2 1/2" x 2 1/2" x 3/16"	6" x 3/16"	5 1/4"
15'-2 3/4"	14	2 1/2" x 2 1/2" x 3/16"	6" x 1/4"	5 1/4"
16'-0 1/4"	15	2 1/2" x 2 1/2" x 3/16"	6" x 3/16"	5 1/4"
17'-3 1/2"	16	2 1/2" x 2 1/2" x 3/16"	6" x 1/4"	5 1/4"
18'-6 3/4"	17	3" x 3" x 1/4"	6" x 3/16"	6 1/4"
19'-4 1/4"	18	3" x 3" x 1/4"	6" x 1/4"	6 1/4"
20'-7 1/2"	19	3" x 3" x 1/4"	6" x 3/16"	6 1/4"
21'-7 7/8"	20	3" x 3" x 3/16"	6" x 1/4"	6 1/4"

14" x 20" GLASS

Width of Window Opening	Total No. of Lights Wide	Angles "A"	Plate "B"	Distance Between Window Dimensions
7'-6"	6	2 1/2" x 2 1/2" x 3/16"	None	5"
9'-10 3/4"	8	2 1/2" x 2 1/2" x 3/16"	None	5"
12'-1"	9	2 1/2" x 2 1/2" x 3/16"	4" x 3/16"	5 1/4"
12'-6 3/8"	10	2 1/2" x 2 1/2" x 3/16"	5" x 3/16"	5 1/4"
13'-8 3/4"	11	2 1/2" x 2 1/2" x 3/16"	6" x 3/16"	5 1/4"
14'-11 1/8"	12	2 1/2" x 2 1/2" x 3/16"	6" x 1/4"	5 1/4"
16'-1 1/2"	13	2 1/2" x 2 1/2" x 3/16"	6" x 3/16"	5 1/4"
17'-6 3/4"	14	2 1/2" x 2 1/2" x 3/16"	6" x 1/4"	5 1/4"
18'-6 1/4"	15	3" x 3" x 1/4"	6" x 3/16"	6 1/4"
19'-11 1/2"	16	3" x 3" x 1/4"	6" x 1/4"	6 1/4"
21'-4 3/4"	17	3" x 3" x 1/6"	6" x 3/16"	6 1/4"
22'-4 1/4"	18	3" x 3" x 3/16"	6" x 1/4"	6 1/4"



Instructions for Handling and Installing Pivoted Types of Truscon Steel Windows

Truscon Steel Windows are carefully inspected before leaving the factory to insure their being in perfect condition. If the following suggestions are carried out, no difficulty will be experienced in keeping the windows in this perfect condition, and in readily installing them.

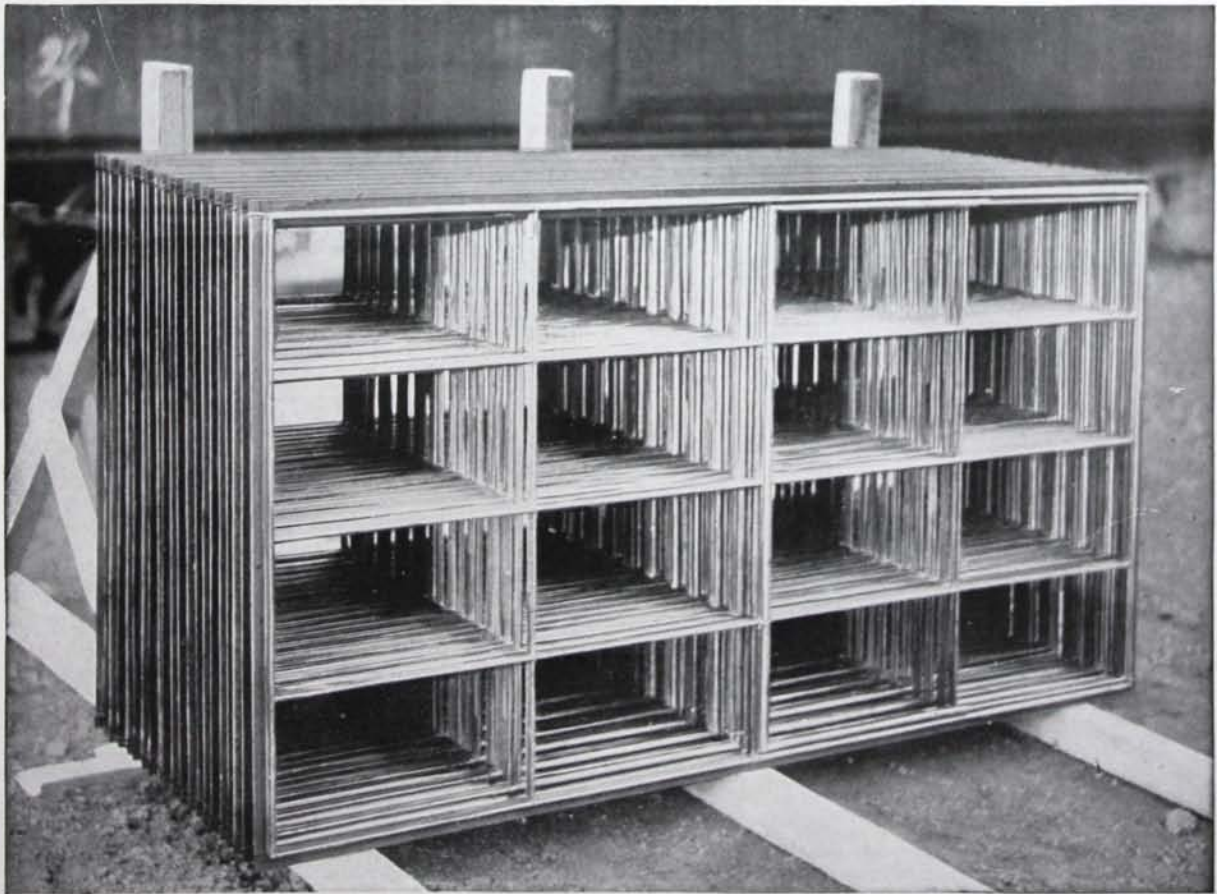
Unloading

A reasonable amount of care should be used in unloading the windows. It is not advisable to throw them around, drop them on the corners or to pile them carelessly on rough ground or uneven surfaces. The advantages gained by proper design, the use of high-class materials and careful workmanship on light ornamental frames of this kind may be entirely destroyed by careless and unintelligent handling during unloading and installing.

Stacking

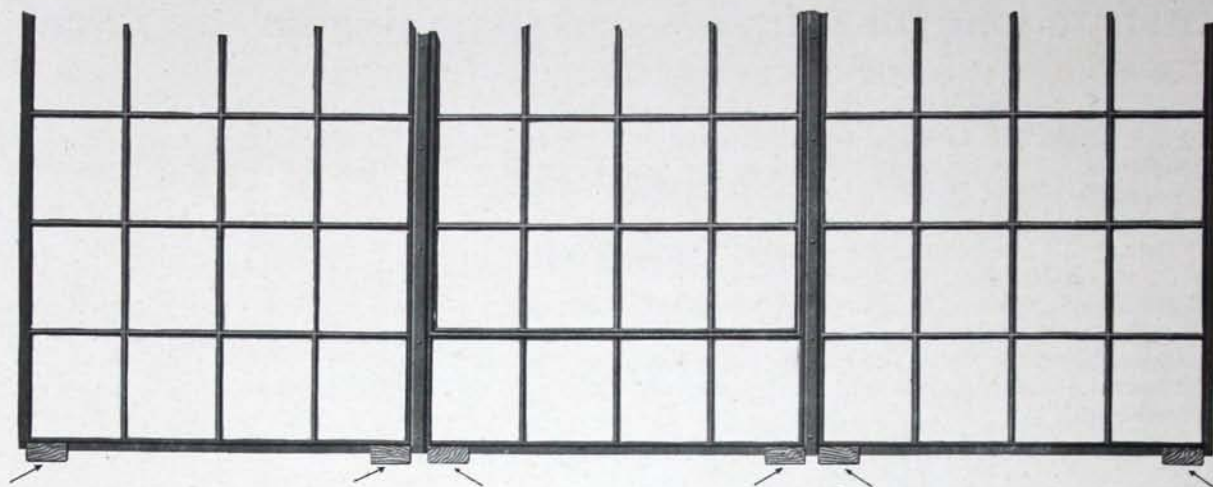
When the windows arrive at the building site, they should be stacked on edge as shown in accompanying illustration. Be sure that the stringers are in a level plane and that the windows are not warped or twisted. The windows must not be laid horizontally or piled one upon the other.

All windows containing ventilators have the ventilators tightly wired to the main frame. These wires must not be cut or removed until the windows are erected in the opening and rigidly fastened in place ready to receive the glass.



Proper Method of Stacking Windows when Received at Building Site

PIVOTED TYPES OF TRUSCON STEEL WINDOWS



Proper Method of Blocking up Windows with Horizontally Pivoted Ventilators
Blocks Must be Placed as Shown
Do not Place Blocks Under Any Other Part of Windows

Erection

To insure absolutely satisfactory results the following rules must be rigidly followed:

First: Be sure all windows are in perfect condition. If in handling or shipping some of the bars have become bent by accident they can be readily straightened and hammered into line again.

Second: Erect the windows **plumb and in a true vertical plane**. Be sure that the horizontal muntins of adjacent units line up exactly. **If the wall openings are out of square, do not attempt to distort the windows to meet this condition.** Correct the fault in the wall opening. **Do not use steel crow bars or wooden prys in erecting steel windows.**

Third: Be sure that the blocking up wedges are only placed directly under the outside jamb sections and at the mullions. **It is important that the blocks are only placed as shown in accompanying illustration.**

Fourth: **Leave ample clearance at head, jambs and sill so that the ventilators will open freely.**

Fifth: The windows are not designed to carry the weight of any of the building construction. It is necessary to provide the requisite structural material to support such loads. Be sure that ample clearance is allowed at the head so that a deflection in the structural steel lintel or a settlement in the brick pilasters will not cause the steel windows to carry the load of the building construction and become badly bowed.

Sixth: After the windows are carefully erected in the openings—square, plumb and rigidly fastened in place—the wires at the ventilators should be cut. Make sure that the ventilators operate freely and fit tightly against the weathering of the frame when closed. If for any reason some of the ventilators do not fit properly or do not operate freely they should be adjusted before the glass is installed.

Seventh: After the ventilators have been carefully inspected, the hardware should be attached. See illustrations, pages 27 and 28. All ventilators are provided with holes and brackets to properly receive either push bar or spring latch and chain hardware. The hardware is carefully boxed and listed and shipped in suitable packages. An ample supply of all required fittings is always sent. Be sure to check over the parts carefully with packing list, and provide suitable weatherproof storage space for the hardware where it can be kept intact until required. **No claims for shortage will be allowed unless reported within ten days after receipt of material. All extra hardware parts required will be charged for as extra to contract price unless proper claim for shortage is filed promptly.**

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Glazing

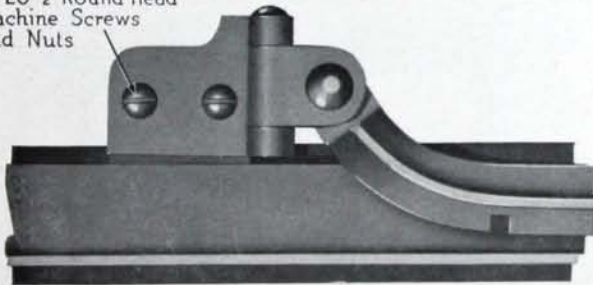
Truscon Steel Windows are glazed from the inside. Each light is held in place by four special spring steel wire glazing clips. Each clip supports the glass at two points, and firmly presses the glass against the putty. These clips have sufficient elasticity to take up the variations in the glass and to absorb the shock of vibration. No special tool is required to place the clips and the glazing operation is easily accomplished, making the cost of glazing Truscon Steel Windows very low.

To insure a satisfactory weathertight installation, it is necessary that the glass be thoroughly bedded in putty spread on the glazing rabbet. The glass must be forced into this bedding putty so that the putty

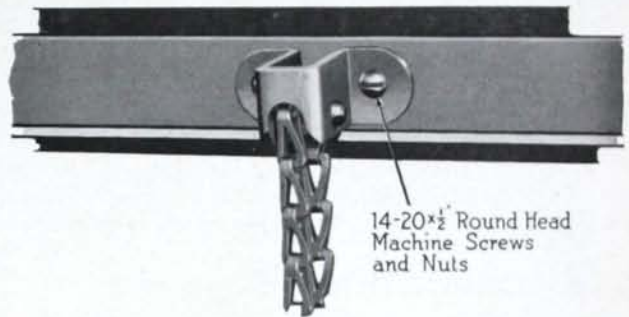


Heavy angle bracket to which either push bar or spring latch is bolted

14-20 $\times\frac{1}{2}$ " Round Head Machine Screws and Nuts

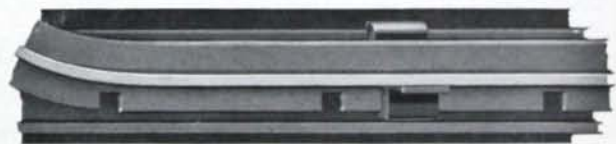


Push Bar bolted to angle bracket



14-20 $\times\frac{1}{2}$ " Round Head Machine Screws and Nuts

Roller bracket bolted to top of ventilator

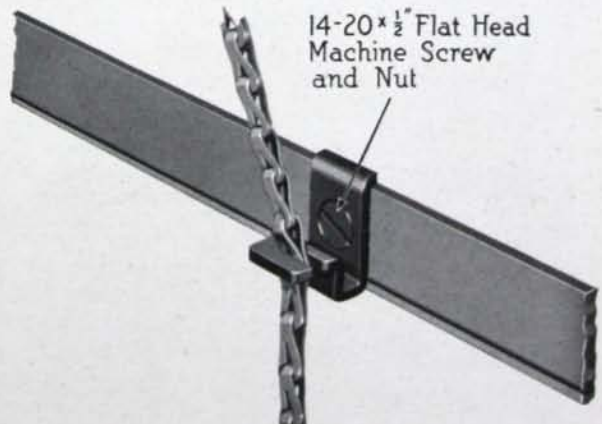


Push bar latch attached with push bar locked. This latch is same as chain cleat below



14-20 $\times\frac{1}{2}$ " Round Head Machine Screws and Nuts

Spring Latch bolted to angle bracket



14-20 $\times\frac{1}{2}$ " Flat Head Machine Screw and Nut

Chain cleat attached. This cleat is the same as push bar latch above

PIVOTED TYPES OF TRUSCON STEEL WINDOWS

will be forced out, filling completely the entire place between the glass and the steel. The excess putty should be neatly struck off.

After the glass has been thoroughly bedded and fastened in place by means of the four spring steel glazing clips, the glass should be neatly face-puttied.

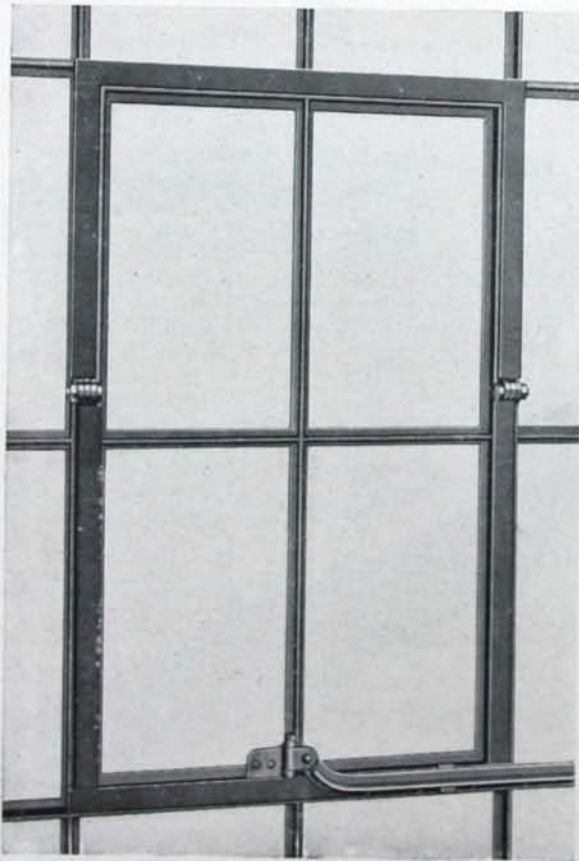
Please note that four clips are required for each light. We ship the actual amount required plus 10% if less than 10,000 are required or plus 5% if more than 10,000 are required. This is ample to properly glaze the windows. Be sure to check over and store carefully until required. No claims for shortage will be allowed unless reported within 10 days after receipt of material. Extra glazing clips required will be charged for as extra to contract price unless proper claim for shortage is filed promptly.

Glass

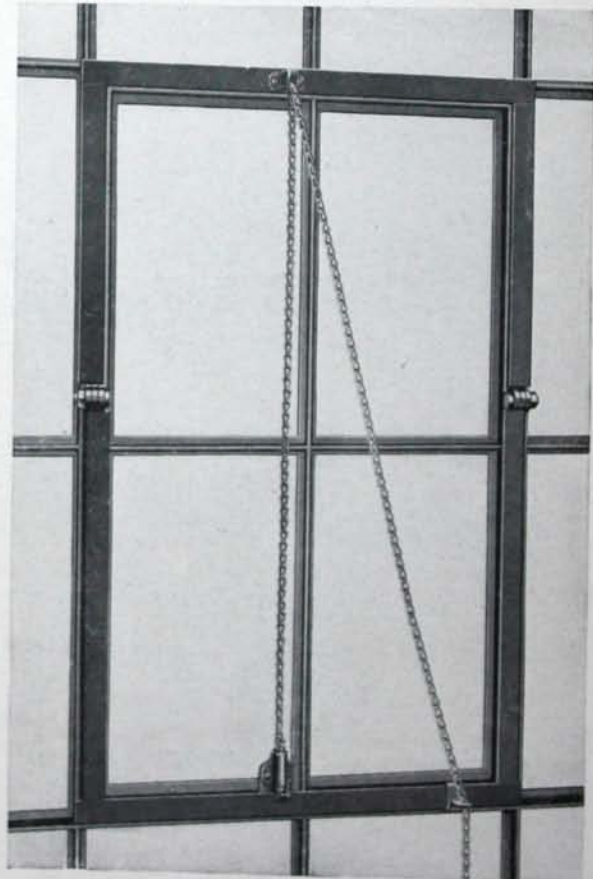
All glass should be cut square and to correct size. The glass should have $\frac{1}{8}$ " clearance on all sides. Glass will break if fitted too tightly. Be sure and note in ordering glass that the top and bottom rows of ventilator lights are $\frac{7}{8}$ " shorter and the side ventilator lights are 1" narrower than the lights in the remainder of the window, as shown on page 8. Glass is not furnished except as an extra especially noted in contract.

Putty

Truscon Metal Sash Putty is not furnished with Truscon Steel Windows unless definitely included in contract at extra price. To secure satisfactory results only putty specially prepared for metal sash should be used. Ordinary wood sash putty is not satisfactory.

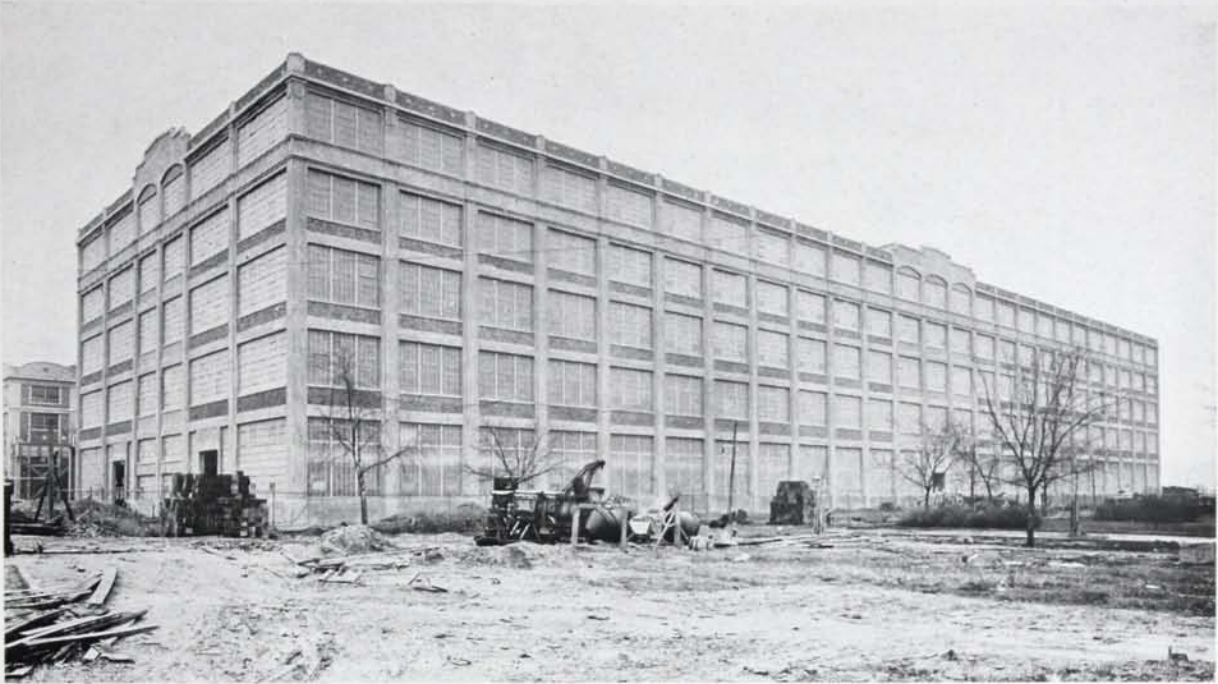


Push Bar Hardware attached complete

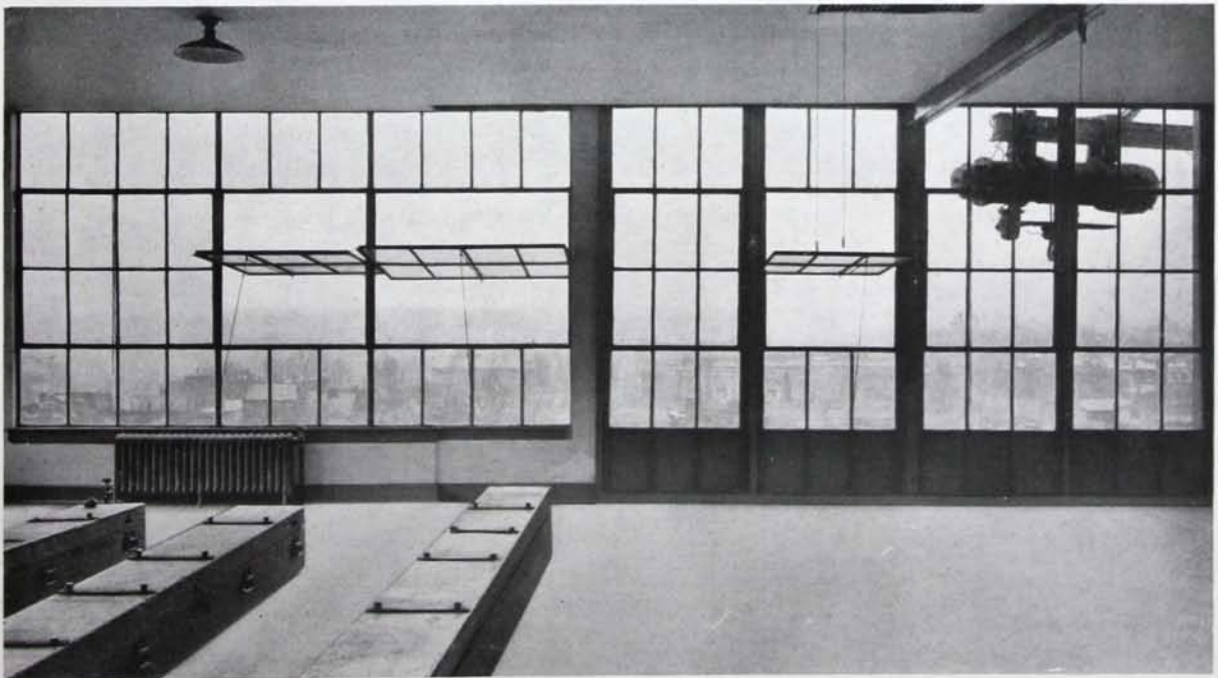


Spring Latch and Chain Hardware attached complete

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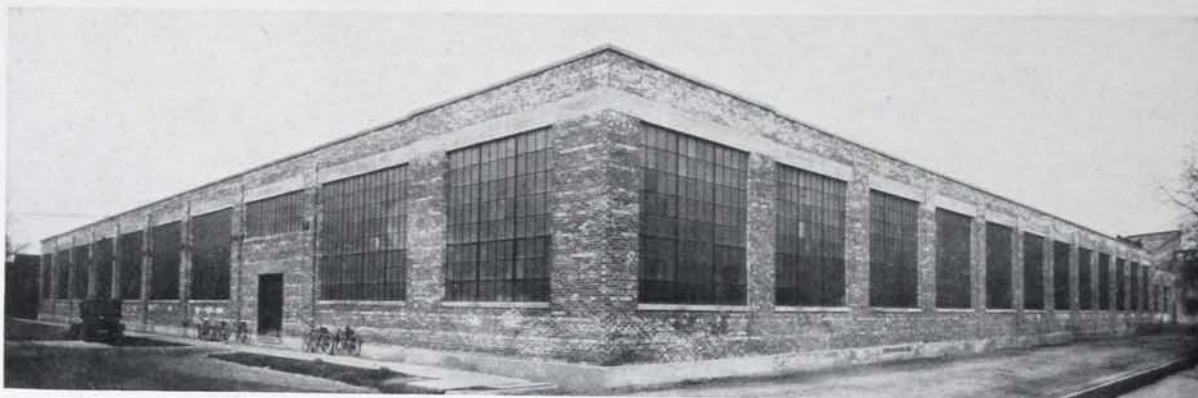


Machine Shop, Washington Navy Yard, Washington, D. C. Wide expanse of Pivoted Truscon Steel Windows for daylighting

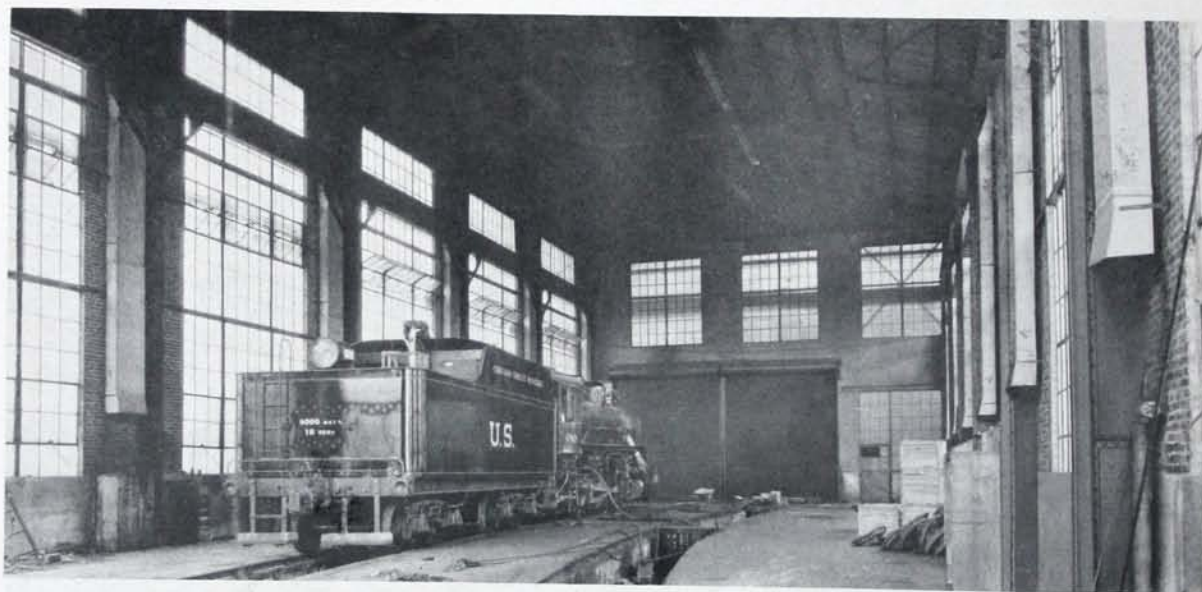


Pivoted Truscon Steel Windows in Range Finding Tower, Washington Navy Yard, Washington, D. C.

PIVOTED TYPES OF TRUSCON STEEL WINDOWS



Warner Gear Co., Muncie, Ind.



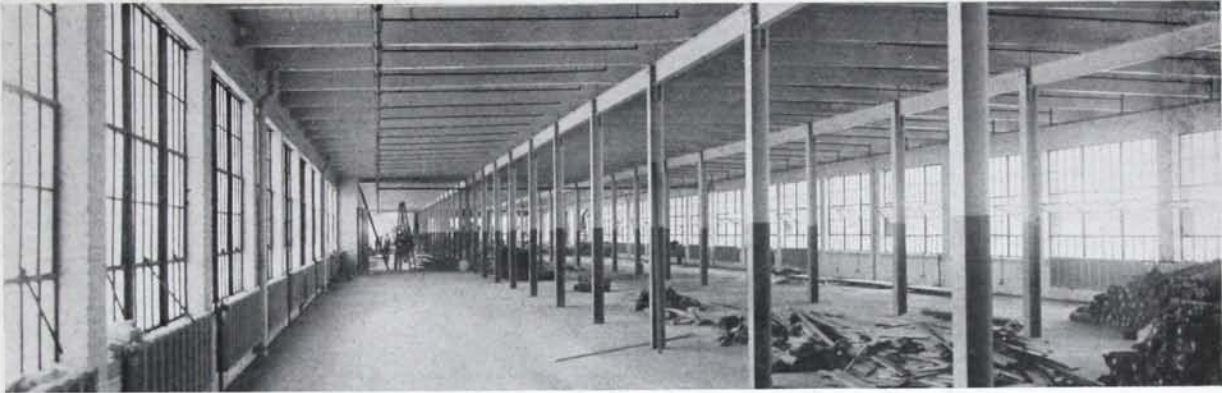
American Locomotive Co., Pittsburgh, Pa.



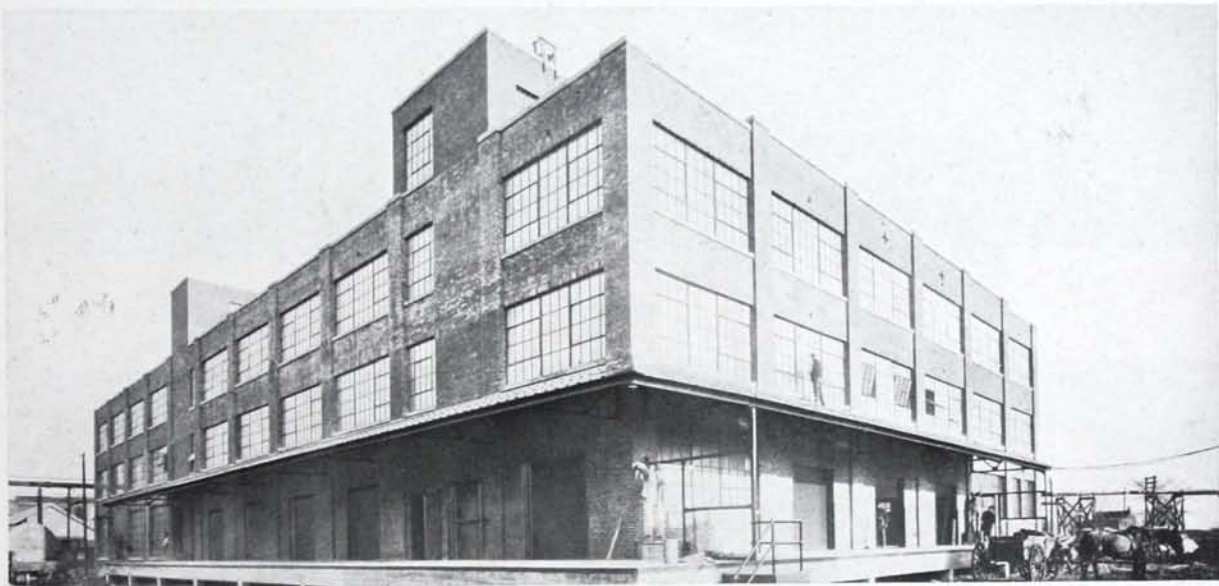
Mahoning Foundry Co., Youngstown, Ohio

Group of Austin Standard Buildings equipped with Pivoted Truscon Steel Windows. Austin Co., Engineers and Builders.

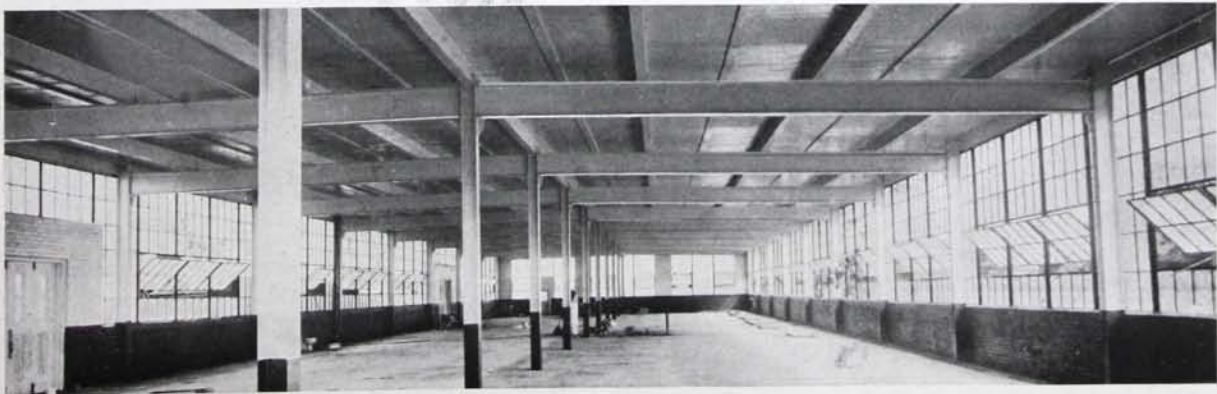
TRUSCON STEEL COMPANY



Singer Manufacturing Co., Elizabethport, N. J.



National Aniline & Chemical Co., Marcus Hook, Penna.



World's Star Knitting Co., Bay City, Mich.

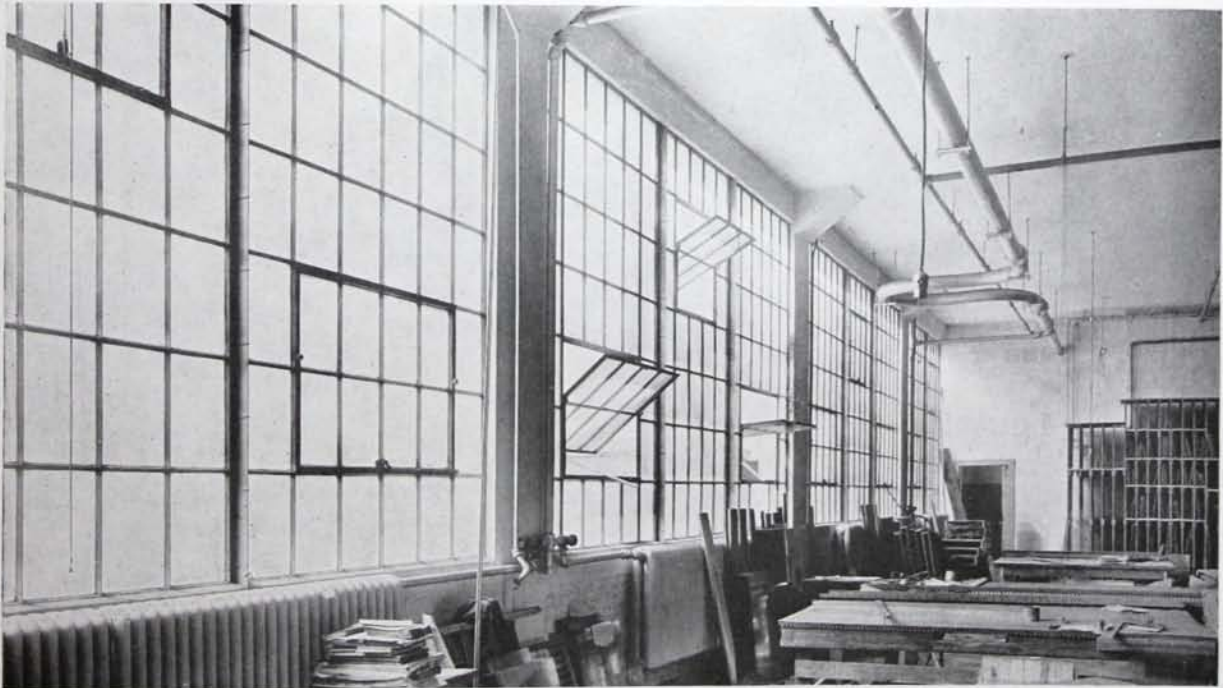
Varied industries adopt Truscon Pivoted Windows for daylighting. Austin Company, Engineers and Builders.

PIVOTED TYPES OF TRUSCON STEEL WINDOWS



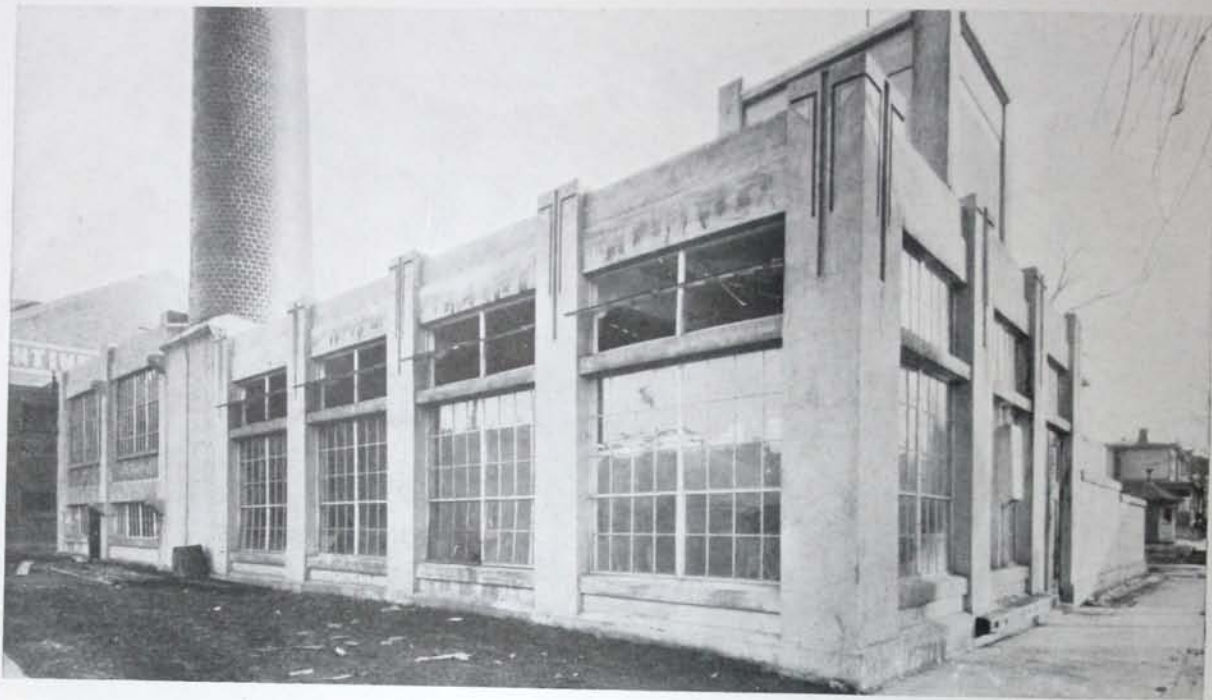
Perfect daylighting in the New Britain Machine Co., New Britain, Conn. Pivoted Truscon Steel Windows in side walls and monitors. Aberthaw Construction Co., Contractors

TRUSCON STEEL COMPANY



Pittsburgh Plate Glass Co., Long Island City, N. Y. Daylighted with Pivoted Truscon Steel Windows

PIVOTED TYPES OF TRUSCON STEEL WINDOWS

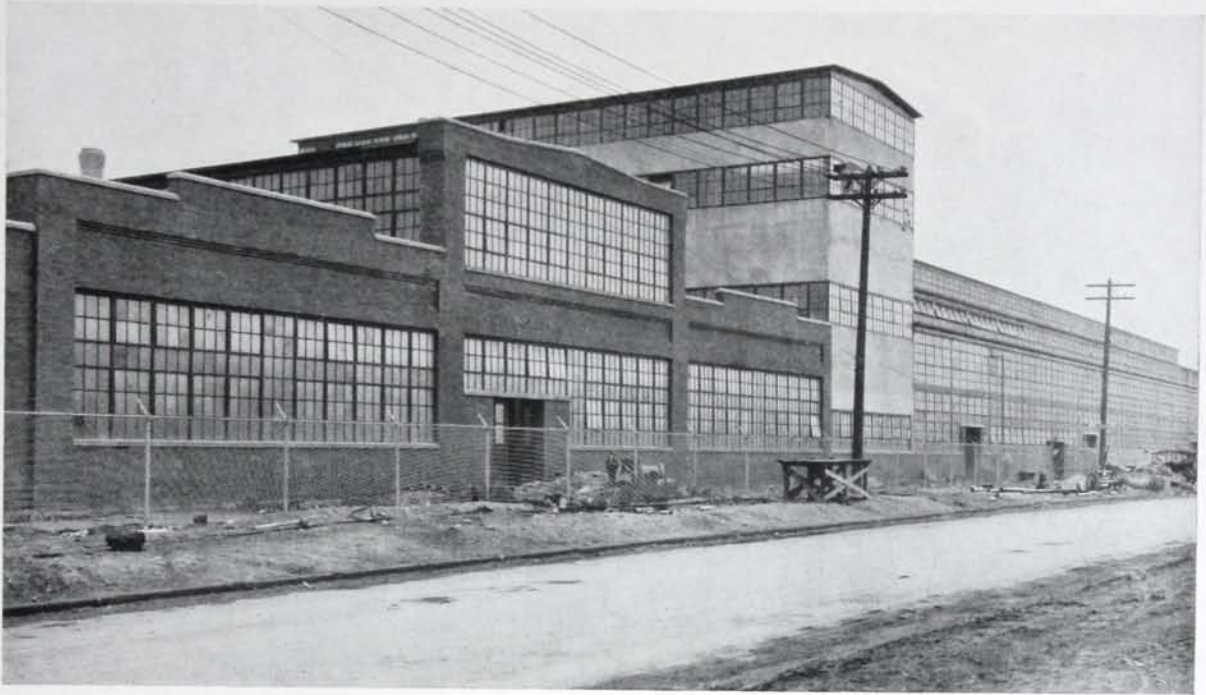


Boiler House of Continental Can Co., Syracuse, N. Y. Thompson & Binger Co., Consulting Engineers, Designers & Contractors. Pivoted Truscon Steel Windows and Truscon Reinforced Concrete

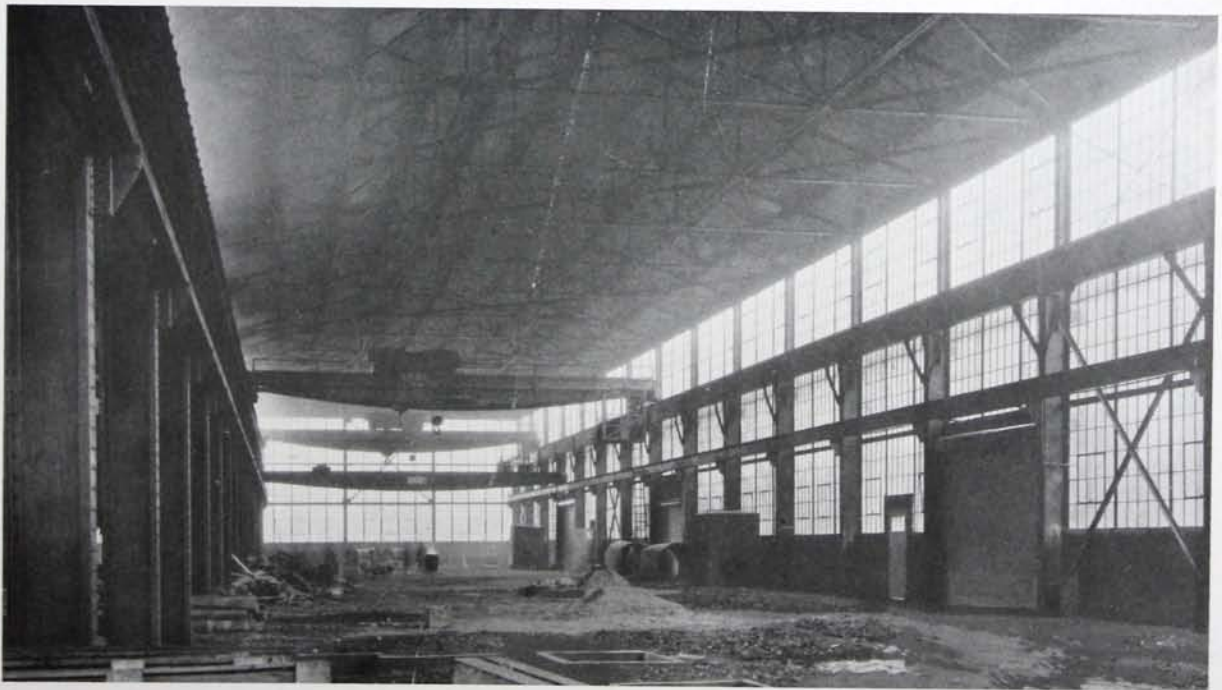


Warehouse and Garage, Detroit News, Detroit, Mich. Albert Kahn, Architect. Daylighted with Pivoted Truscon Steel Windows

TRUSCON STEEL COMPANY



Aluminum Castings Co., Detroit, Mich. Mr. Williams, Construction Engineer. F. W. Mark & Co., Contractors. Daylighted with Pivoted Truscon Steel Windows

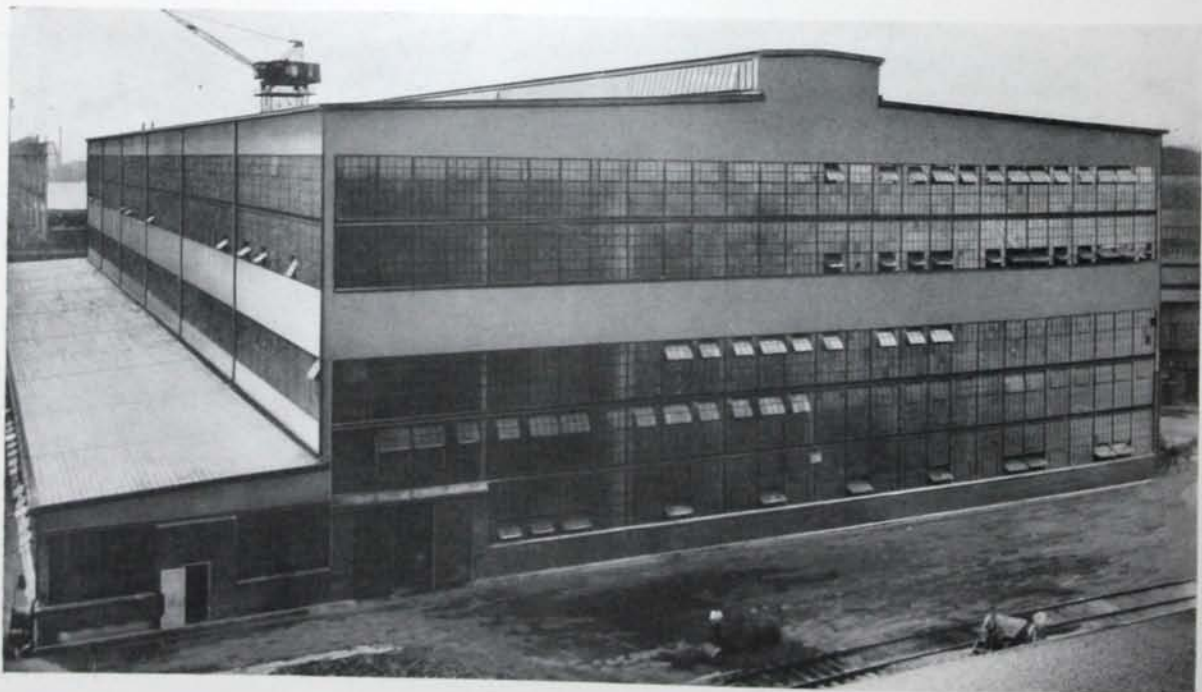


Long & Allstatter Co., Hamilton, Ohio. Walls of Pivoted Truscon Steel Windows. F. G. Mueller, Architect. F. K. Vaughan Building Co., Contractors

PIVOTED TYPES OF TRUSCON STEEL WINDOWS



Plate and Angle Shop



Machine Shop

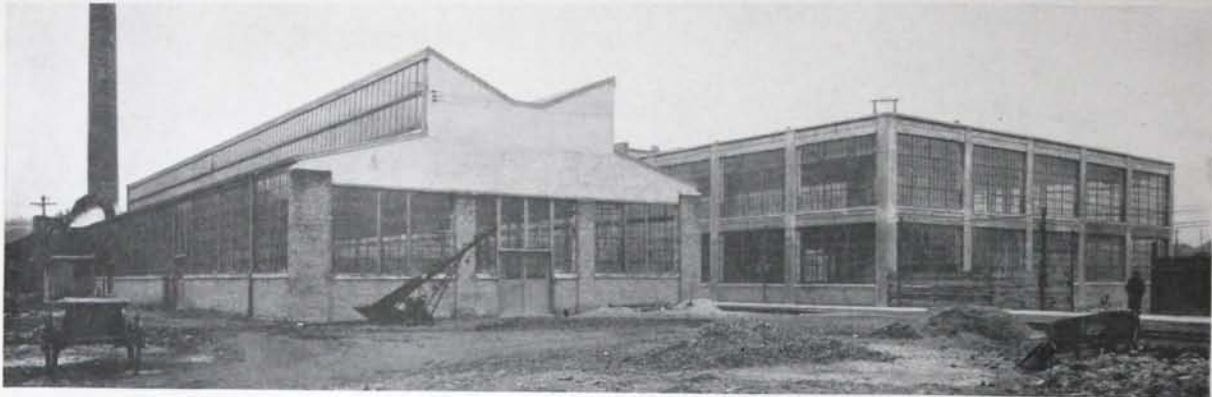
Walls entirely of glass, made possible by Truscon Steel Windows.
New York Shipbuilding Corporation, South Yard, Camden, N. J.

Truscon Continuous
Steel Sash
and
Truscon Operator



Part Two

TRUSCON CONTINUOUS STEEL SASH



Michigan Smelting & Refining Co., Detroit, Mich. Albert Kahn, Architect. H. G. Christman Co. and W. E. Wood Co., Contractors. Pivoted Truscon Steel Windows in side walls; Truscon Continuous Sash in monitors

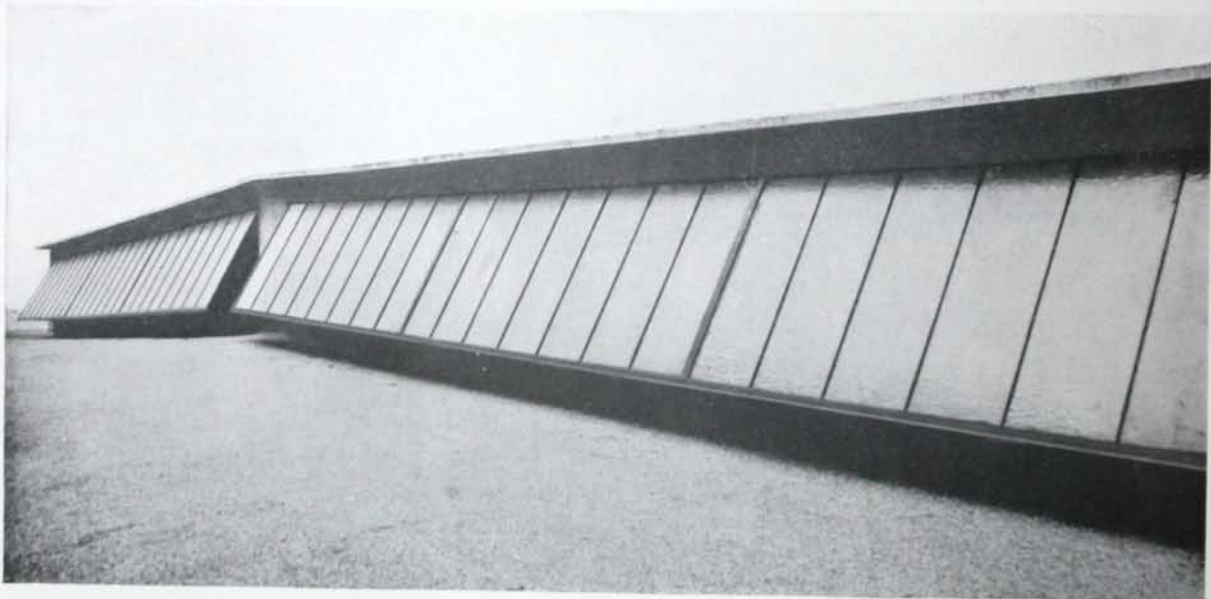


Plate Mill, Bethlehem Steel Co., Sparrows Point, Md. View of Truscon Continuous Sash in monitors



Singer Manufacturing Co., Elizabethport, N. J. Truscon Continuous Sash in sawtooth. Truscon Steel Windows in side walls. Austin Company, Engineers & Builders

Truscon Continuous Steel Sash

Patented

A most important feature of modern factories is the continuous steel sash for monitors, saw-tooth roofs and similar uses. Essentially, such sash must be weather-tight under all conditions, must operate easily and must afford maximum ventilation, daylight and permanence.

Truscon Continuous Sash have been perfected by years of experience, and possess many individual features of distinctive merit.

The improved method of support, consisting of a continuous bearing, eliminates the old-style hinges which only supported the sash at wide intervals. There are no openings above the sash for rain or snow to enter, such as occur between the hinges of other types. The contact is absolutely weather-tight, whether the sash is opened or closed.

This continuous bearing distributes the weight of the sash evenly throughout its length, thus increasing its rigidity and ease of operation.

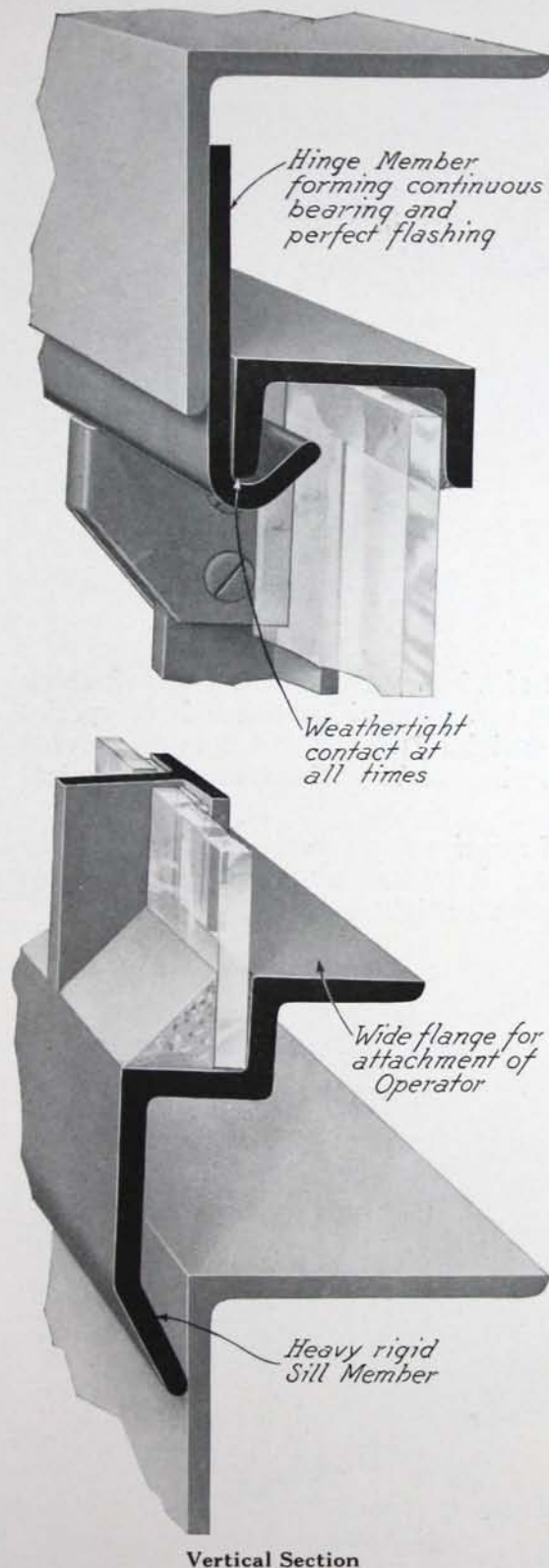
The sill member is heavy and rigid, and provides a wide flange for the attachment of the operator. It is so formed with a bent flange as to provide a weather-tight contact at the sill.

At the end of a run of continuous sash perfect weathering is obtained by the combination of fixed and storm panels. A storm panel is placed behind each end light of the swinging sash, and thus prevents rain or snow from blowing in.

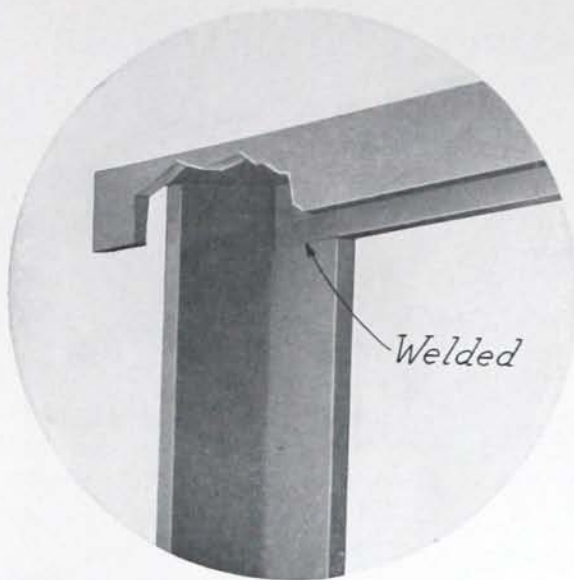
Construction and Workmanship

The members of Truscon Continuous Sash are formed of solid rolled sections of the highest grade of steel. The members are abundantly heavy so as to amply provide for the severest strain to which continuous sash are subjected.

The supporting member which is attached to the building is especially formed of heavy steel, providing accurate bearing and perfect



TRUSCON CONTINUOUS STEEL SASH



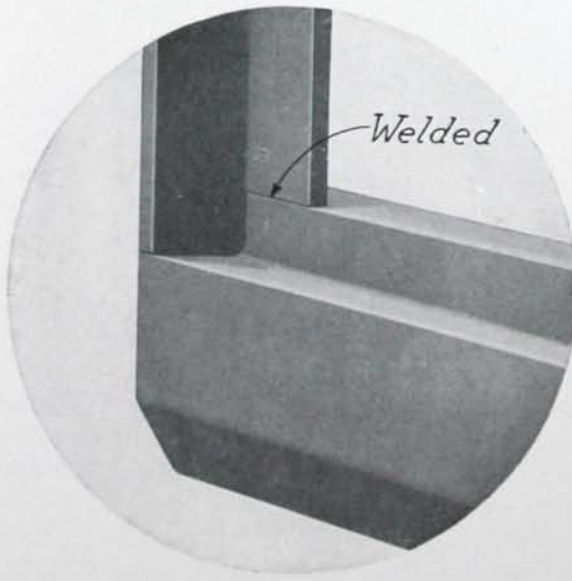
Top Corner Joint



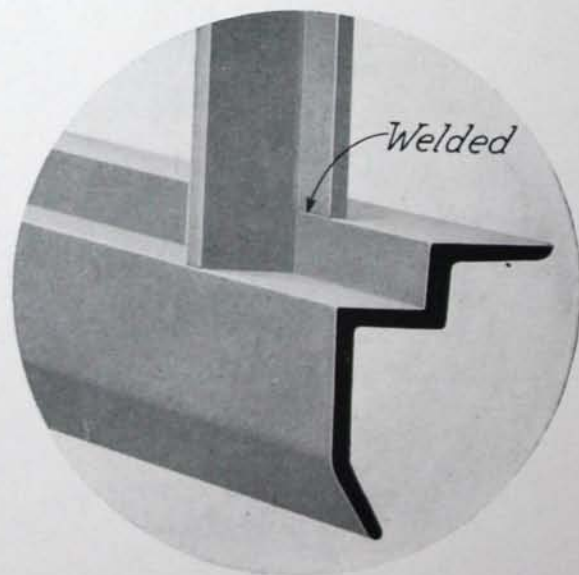
Top Joint at Muntin

flashing for the sash. The top member of the sash is of a heavy channel section, of which the outside flange bears evenly on the supporting member. The sill member is of special design with a wide projecting flange to insure greatest rigidity in the sash and to provide for the attachment of the operator. The vertical muntins are T sections, and the vertical end members are angle sections, all of ample weight.

The assembling of these members is by means of mortise and tenon joints, accurately punched and fitted. All joints are welded into a solid unit by the oxy-acetylene process to assure a connection of unquestioned strength and weather-tightness.

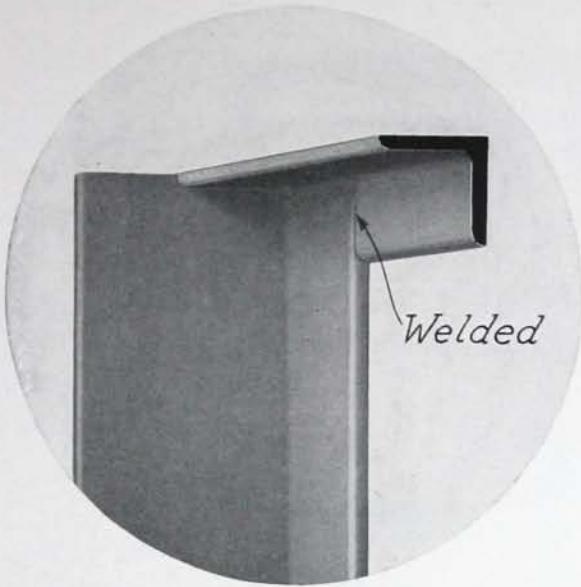


Bottom Corner Joint

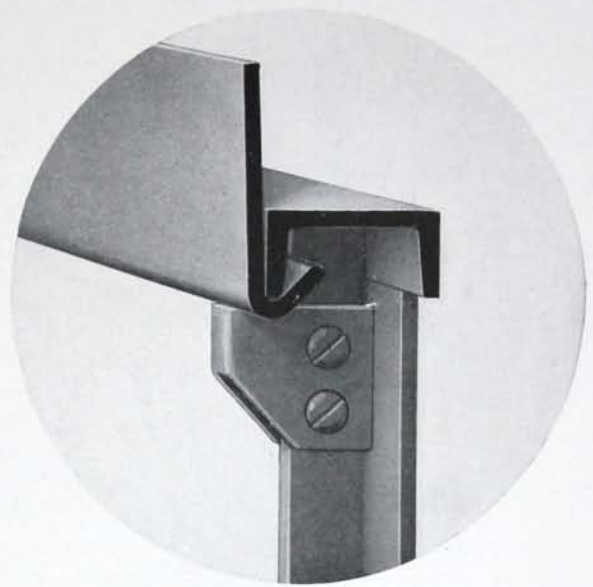


Bottom Joint at Muntin

TRUSCON STEEL COMPANY



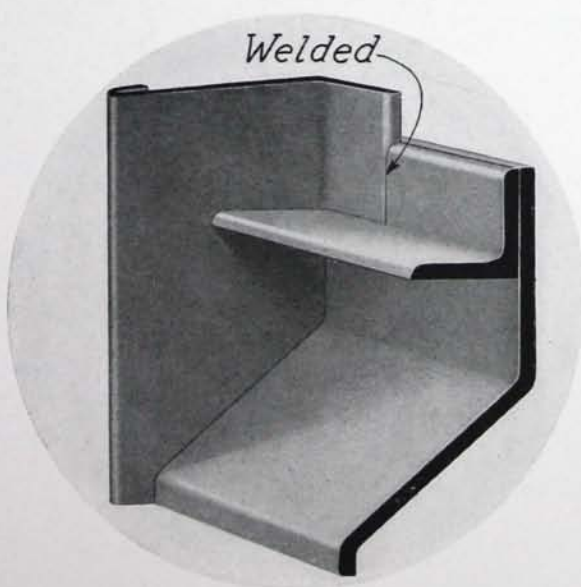
Top Corner Joint of Storm Panel



Detail Showing Stay Clip

The storm panel is made of heavy solid members of the same construction as the sash. The connection with the fixed steel panel is weather-tight, the swinging sash has a continuous contact weathering, and a drip sill is provided in the storm panel itself, thus giving thorough protection against the severest rains and storms.

As an additional safeguard, occasional stay-clips are rigidly attached to the vertical muntins to prevent displacement of the sash through misuse. The same thoroughness in design and high quality of workmanship which characterize all sash of the Truscon Steel Co. guarantee the distinctive superiority of Truscon Continuous Sash.

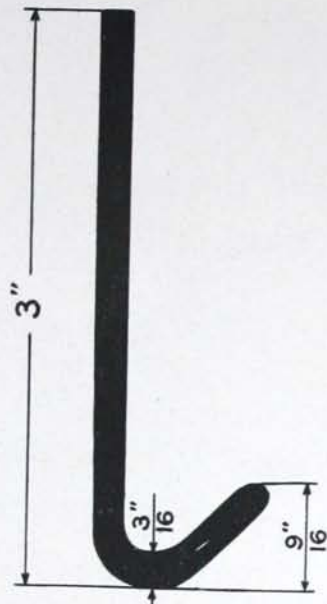


Bottom Corner Joint of Storm Panel

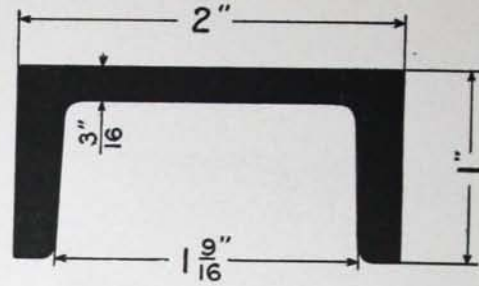


Continuous Steel Sash, Illinois Central R. R.
Car Shops, Memphis, Tenn.

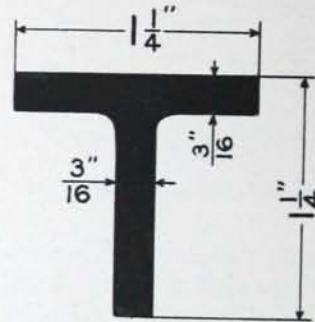
TRUSCON CONTINUOUS STEEL SASH



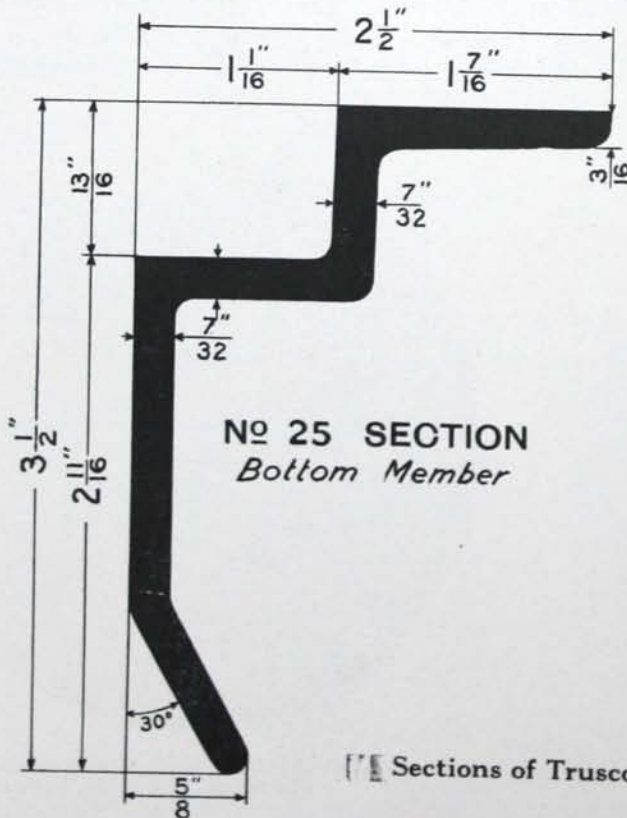
No 27 SECTION
Top Supporting Member



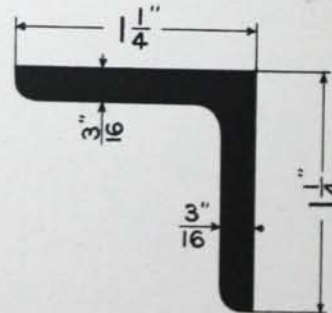
No 26 SECTION
Top Member



No 28 SECTION
Interior Vertical Muntin

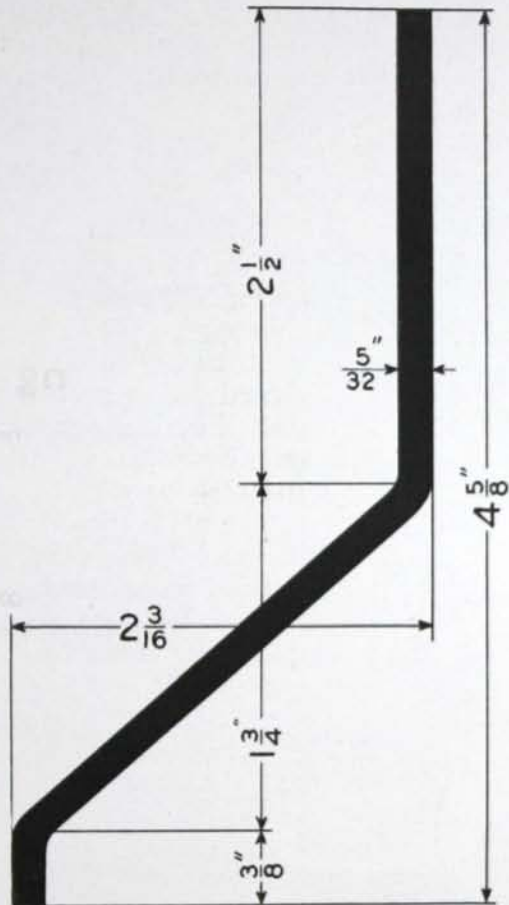


No 25 SECTION
Bottom Member

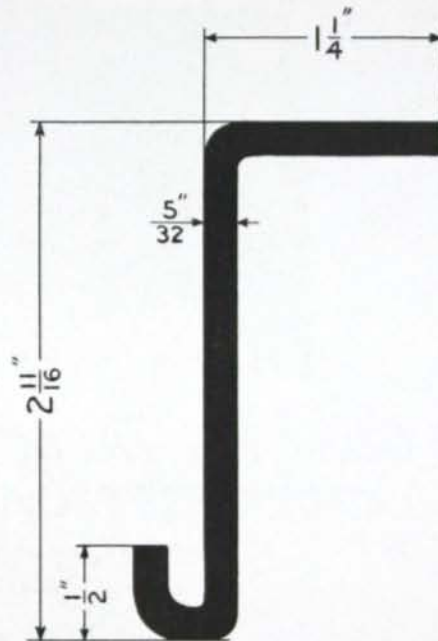


No 29 SECTION
Vertical End Member

Sections of Truscon Continuous Sash



№ 32 SECTION
*Bottom Member of
 Storm Panel*



№ 31 SECTION
*Vertical End Member
 of Storm Panel*

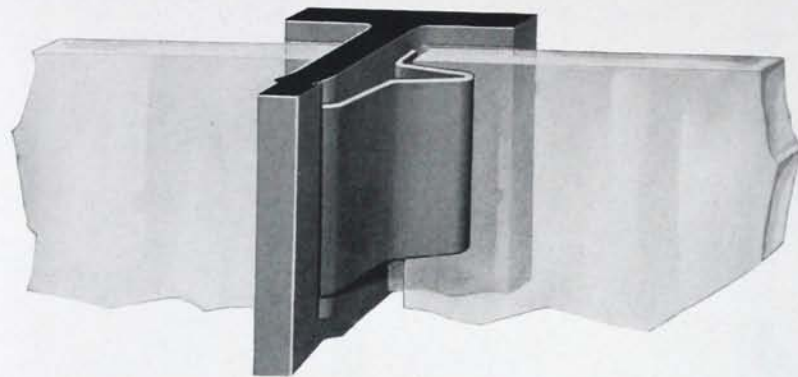
Sections of Truscon Continuous Sash

TRUSCON CONTINUOUS STEEL SASH

Standard Sizes of Truscon Continuous Sash

Sash No.	Height of Sash	Height of Opening	Glass Size
No. 3	3'-0"	2'-10 1/2"	23 3/8" x 32 3/4"
No. 4	4'-0"	3'-10 1/2"	23 3/8" x 44 3/4"
No. 5	5'-0"	4'-10 1/2"	23 3/8" x 56 3/4"
No. 6	6'-0"	5'-10 1/2"	23 3/8" x 68 3/4"

Truscon Continuous Sash are made in standard heights as shown in the table opposite. The units are designed for a truss spacing of 20 ft. on centers. The various units, however, can be combined to fit any length of run. See details on following pages.

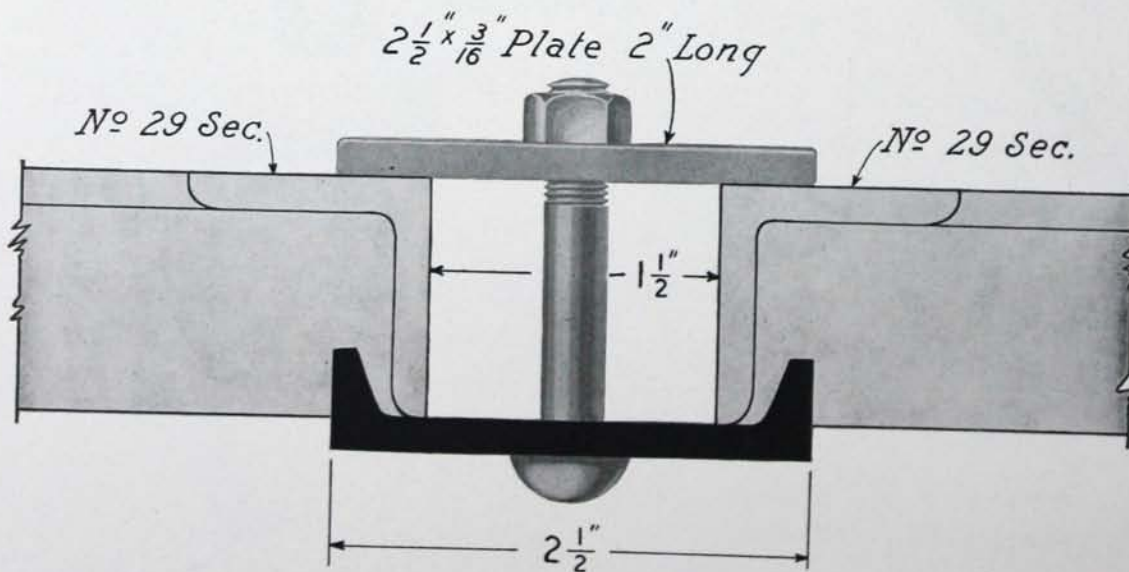


GLAZING TRUSCON CONTINUOUS SASH

Glazing

Truscon Continuous Sash are glazed by means of heavy spring clips as illustrated on this page. Note particularly that these clips are so designed as to give a substantial bearing—approximately one inch in width—against the sash as well as the glass.

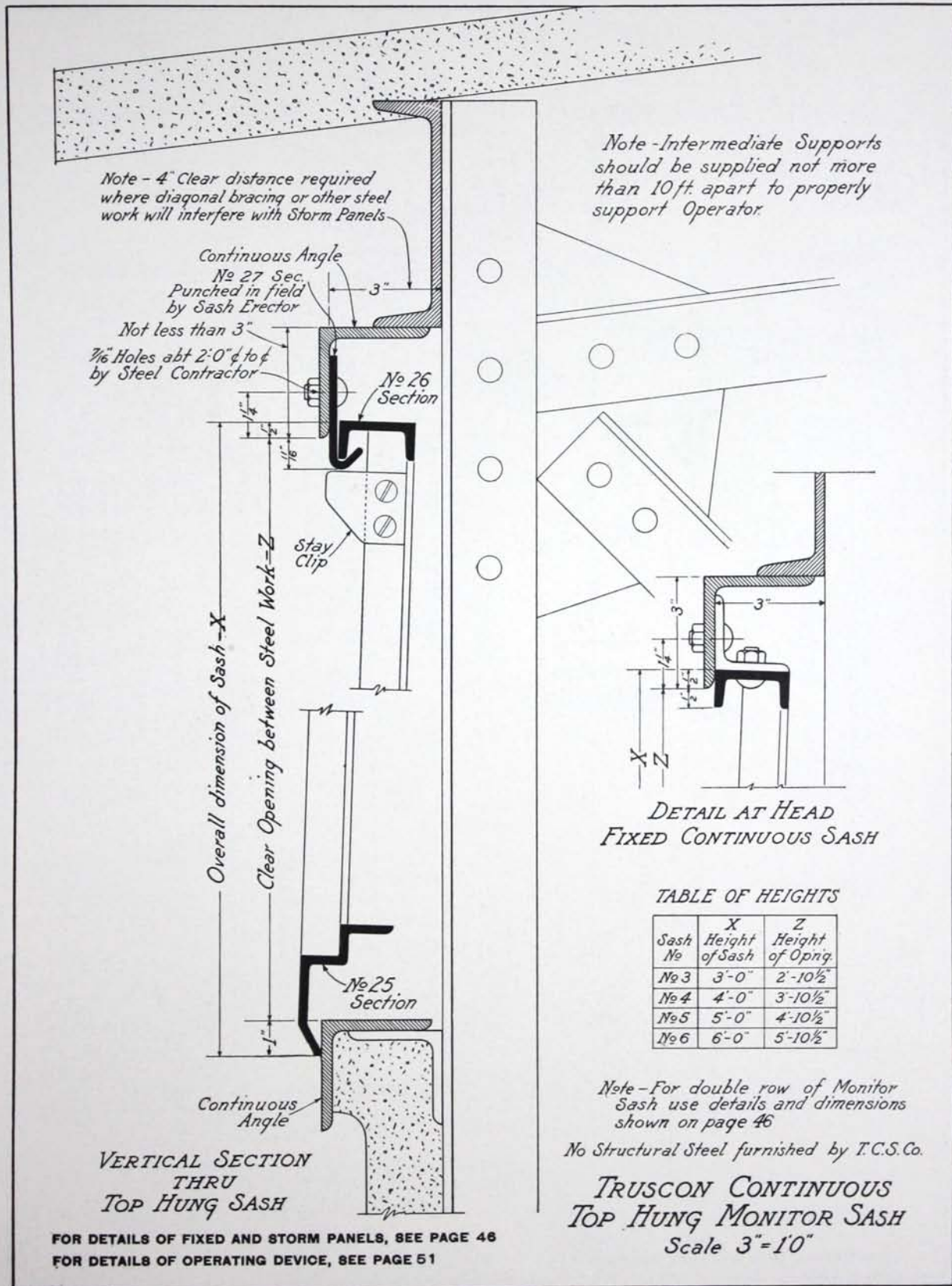
The glass should be bedded in Steel Sash putty, and face puttied along the bottom section. No face putty is required at the sides or top.



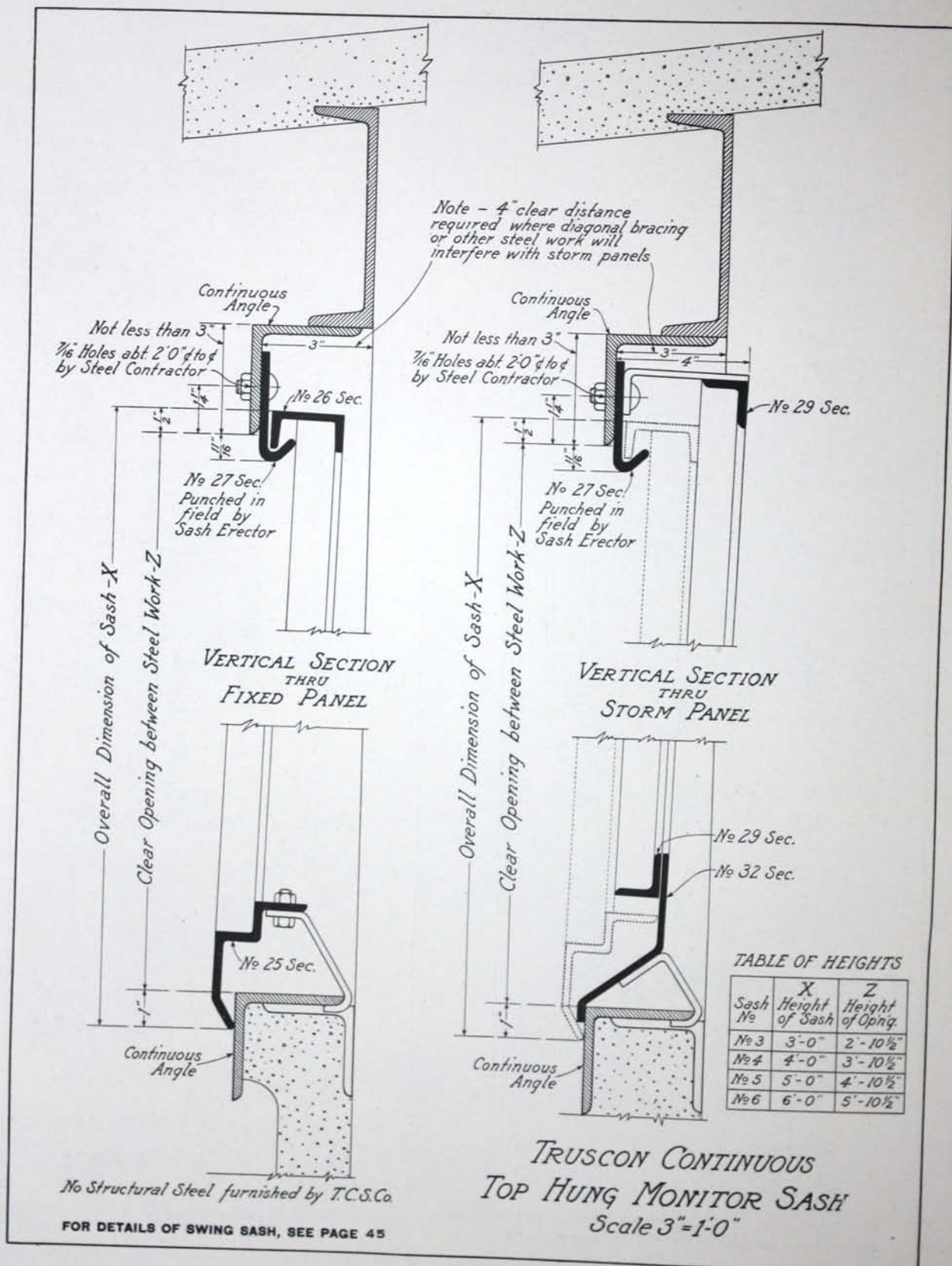
TYPE F MULLION

Used with all Truscon Continuous Sash

TRUSCON STEEL COMPANY



TRUSCON CONTINUOUS STEEL SASH



TRUSCON STEEL COMPANY

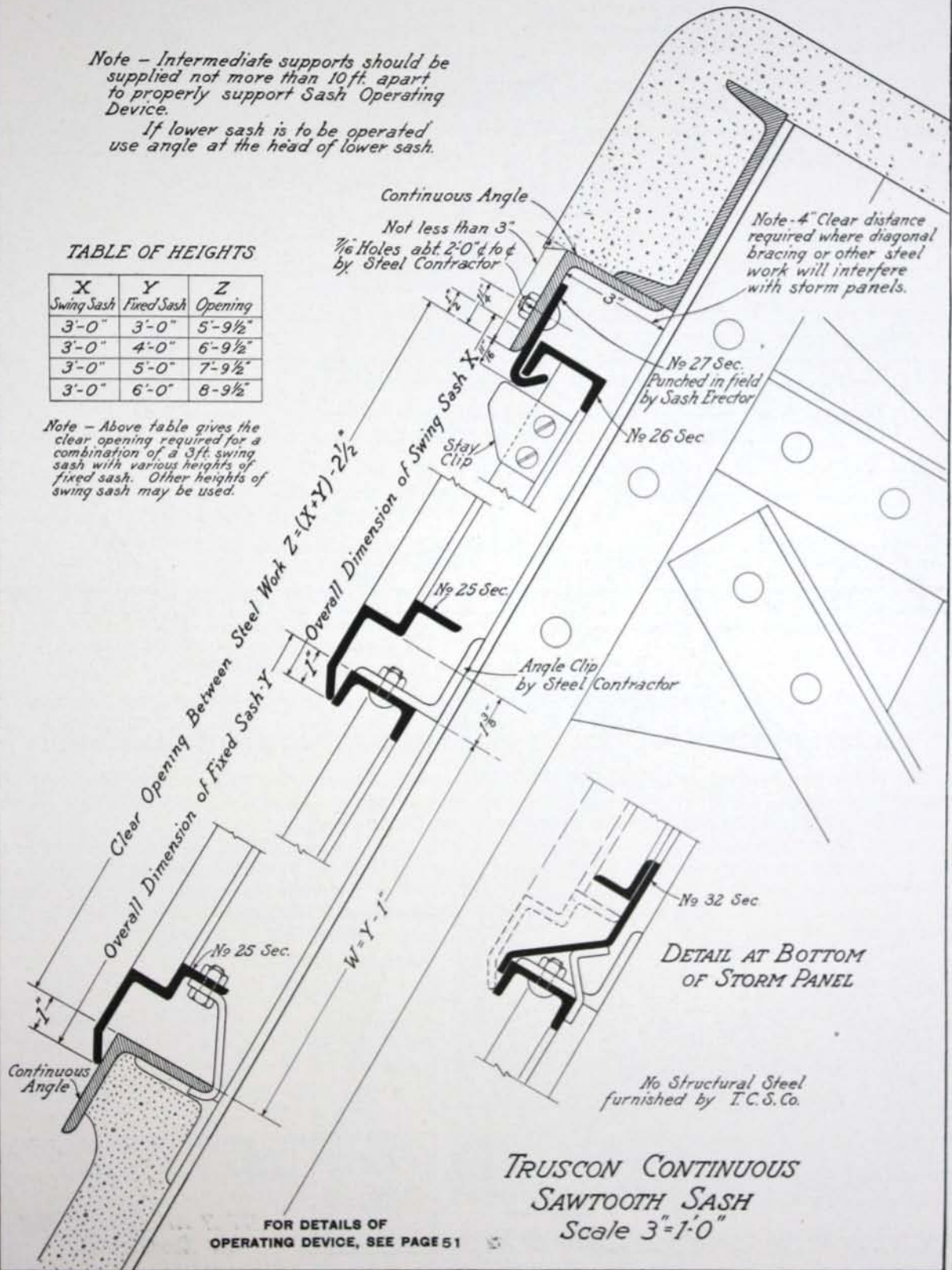
Note - Intermediate supports should be supplied not more than 10 ft. apart to properly support Sash Operating Device.

If lower sash is to be operated use angle at the head of lower sash.

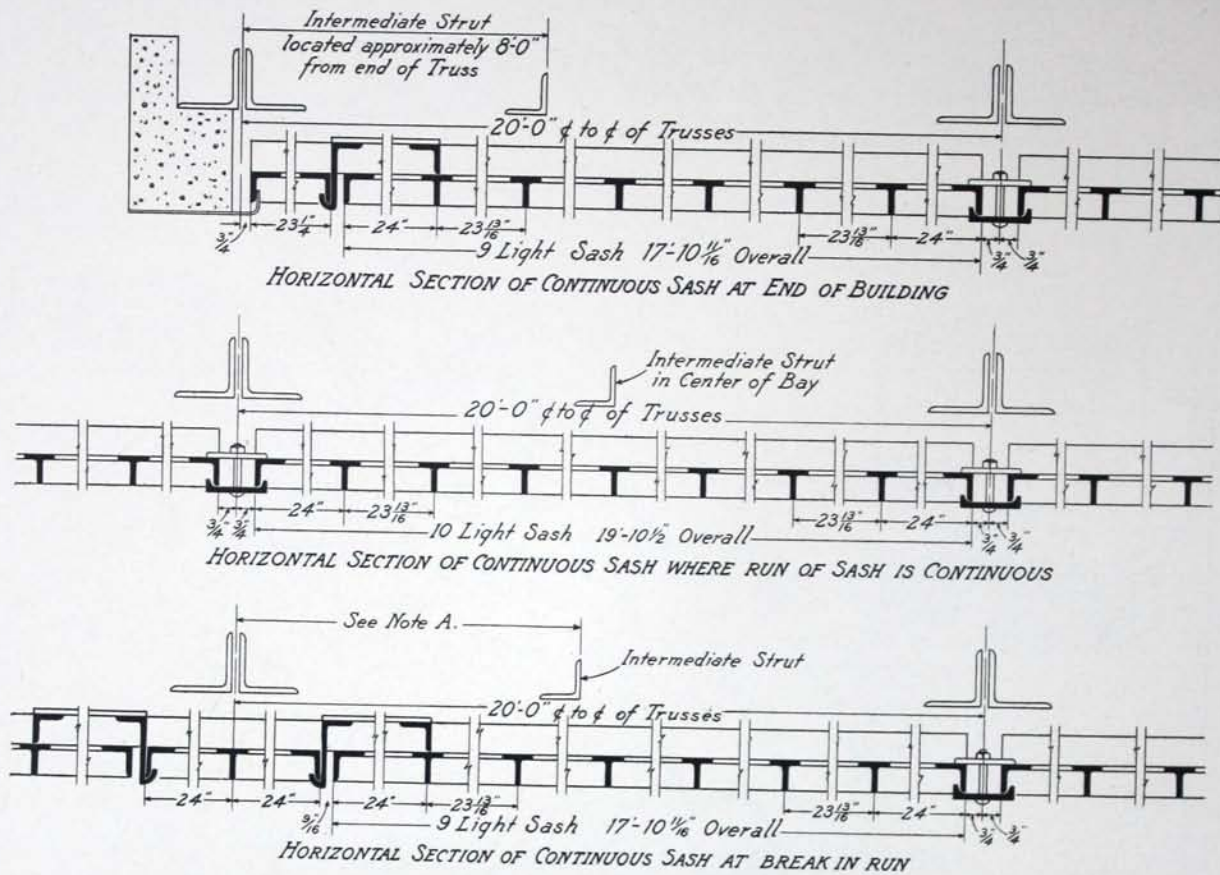
TABLE OF HEIGHTS

X Swing Sash	Y Fixed Sash	Z Opening
3'-0"	3'-0"	5'-9½"
3'-0"	4'-0"	6'-9½"
3'-0"	5'-0"	7'-9½"
3'-0"	6'-0"	8'-9½"

Note - Above table gives the clear opening required for a combination of a 3 ft. swing sash with various heights of fixed sash. Other heights of swing sash may be used.



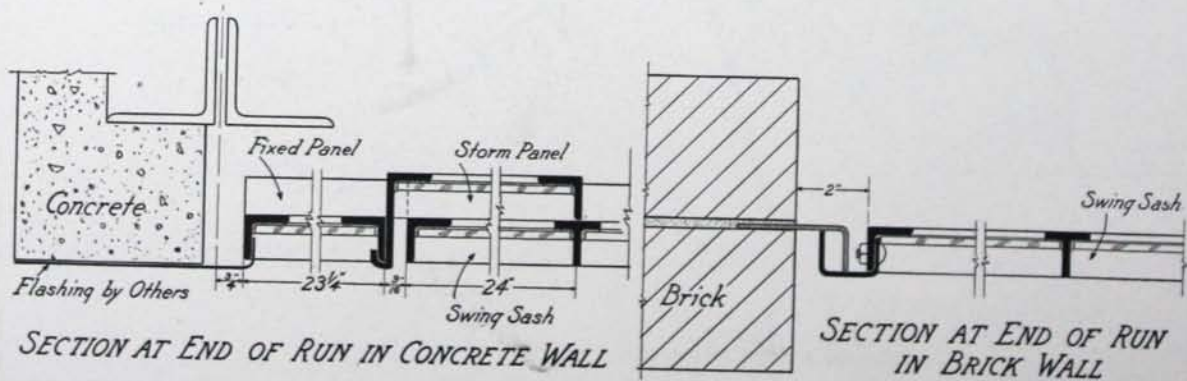
TRUSCON CONTINUOUS STEEL SASH



Arrangement of Runs of Truscon Continuous Sash

The above details show truss spacing of 20' 0" centers. Truscon Continuous Sash, however, can be arranged to accommodate other truss spacings. Usually continuous sash is laid out in 20' 0" units irrespective of truss spacing, as the sash extends continuously past the trusses.

NOTE A: When monitor or sawtooth is such length that continuous sash must be operated in more than one run, the intermediate struts in the bays adjacent to the break in the run must be located the same as the intermediate struts in end bays; i. e., approximately 8' 0" from the truss (maximum 9' 0", minimum 7' 0"). If the intermediate strut is located at a greater distance than 9' 0" from end truss, a wider fixed panel than shown must be used.



Truscon Operator for Continuous Sash

Patented

The design of the Truscon Operator has been perfected for use with Truscon Continuous Sash. The operator has great power combined with ease of operation, thus making it ideally adapted for controlling heavy top-hung sash. It has been successfully used for several years in many important installations. The Truscon Operator is a tension type with lever arms, continuous connecting rods and operating station.

The controlling feature of the operator consists of swinging arms which move in a horizontal plane, and are right and left hand, thereby eliminating any side thrust on the sash. The lifting arms are the horizontal compensating type, that is, they swing through a horizontal plane, and are so arranged that the leverage on the sash grows constantly greater as the load increases. This exclusive feature of the Truscon Operator consists of a toggle arrangement obtained by pivoting the arms about two centers on the support. This one feature gives the Truscon Operator 60% to 100% greater power than other operators, thereby eliminating the necessity of counterweights except where the lengths of run are extreme.

The arms are substantial trussed steel members, designed to withstand all operating strains and to assure greatest permanence. All hinged connections have bronze bearings to provide ease of operation.

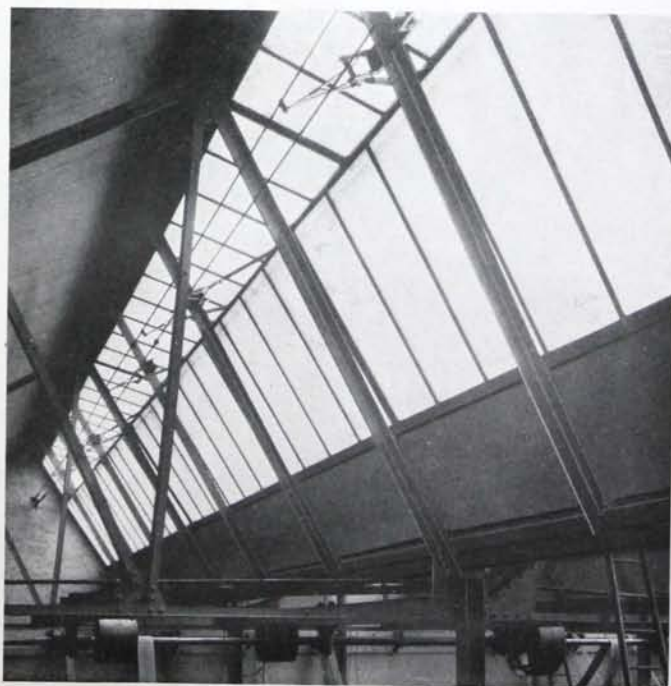
The arms are operated in unison by the tension transmission, which consists of $\frac{1}{2}$ " steel rods with forged upset ends and in 20-foot lengths joined with steel couplings. The transmission sprocket chain is of steel welded links similar to those used on chain hoists.

The mechanism of the operating station is a worm and gear type, which locks the sash at any position and thereby prevents any slamming or vibration of the sash. The worm wheel is of bronze and the worm of steel, both parts properly machined to a smooth fit. These are enclosed in a dust-proof case with all bearings immersed in oil. All parts of the device are ground or machined so as to fit together properly.

Vertical supporting members should be supplied for the attachment of the swinging arms. These should be spaced not more than ten feet apart. See pages 50 and 51 for details of Truscon Operator.

The accompanying table gives the size of opening which can be obtained on top-hung sash by means of the Truscon Operator. The large size of the opening assures maximum ventilation.

Sash No.	Height of Sash	Opening in Degrees	Opening in Inches
No. 3	3'-0"	45°	28"
No. 4	4'-0"	45°	37"
No. 5	5'-0"	42°	43"
No. 6	6'-0"	36°	44"

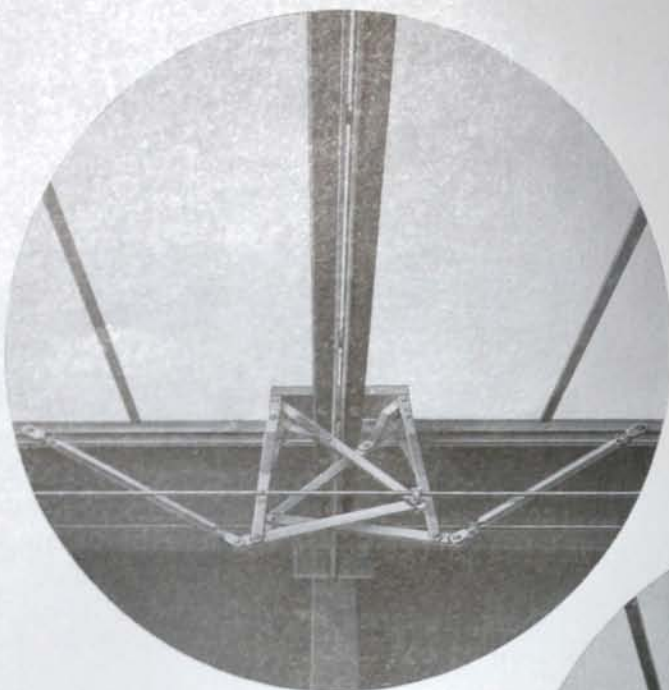


Acklin Stamping Co., Toledo, Ohio. Truscon Continuous Sash with Truscon Operator

TRUSCON OPERATOR FOR CONTINUOUS SASH

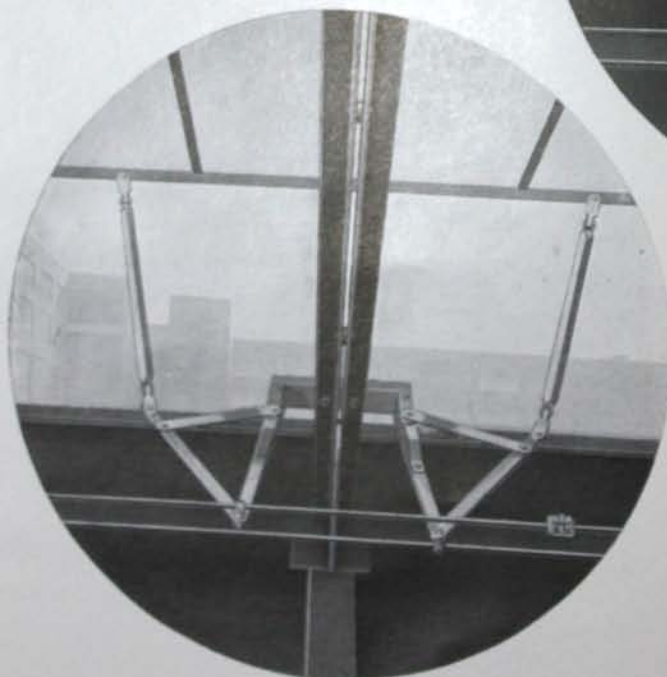
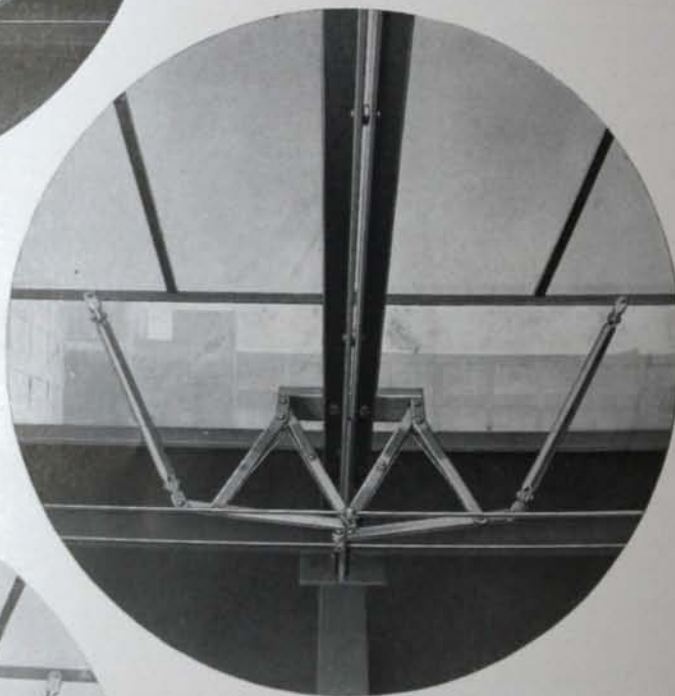
Sash Closed

Note the Truscon Operator in this position positively locks the sash, providing a weathertight contact and preventing rattling of the sash.



Sash Partly Open

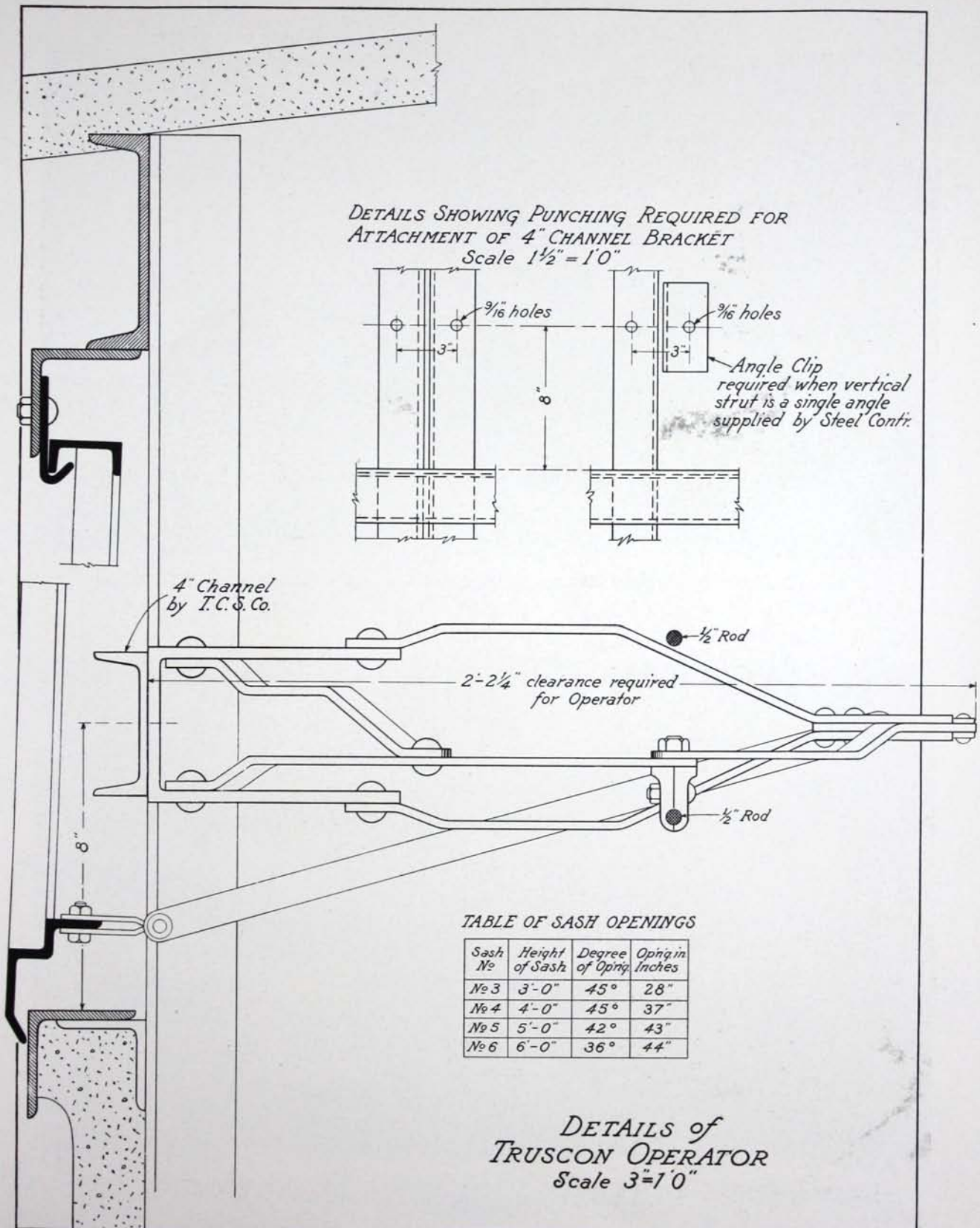
As the sash opens wider, the power of the lever arms of the operator increases, thus counteracting the increasing weight of the sash.



Sash Open Wide

In this position the Truscon Operator provides a maximum width of opening for ventilation. See page 49 for tables of sizes of openings.

TRUSCON STEEL COMPANY



TRUSCON CONTINUOUS STEEL SASH



Pittsburg Transformer Co., Pittsburg, Pa. Truscon Continuous Sash—note storm panels. Austin Company, Industrial Engineers and Builders

TRUSCON STEEL COMPANY



Page Dairy Co., Whitehouse, Ohio. Truscon Continuous Sash and Truscon Operator in monitor



American Spiral Pipe Co., Chicago, Ill. Truscon Continuous Sash in monitors and Steel Windows in side walls. Davidson & Weiss, Architects.

TRUSCON CONTINUOUS STEEL SASH

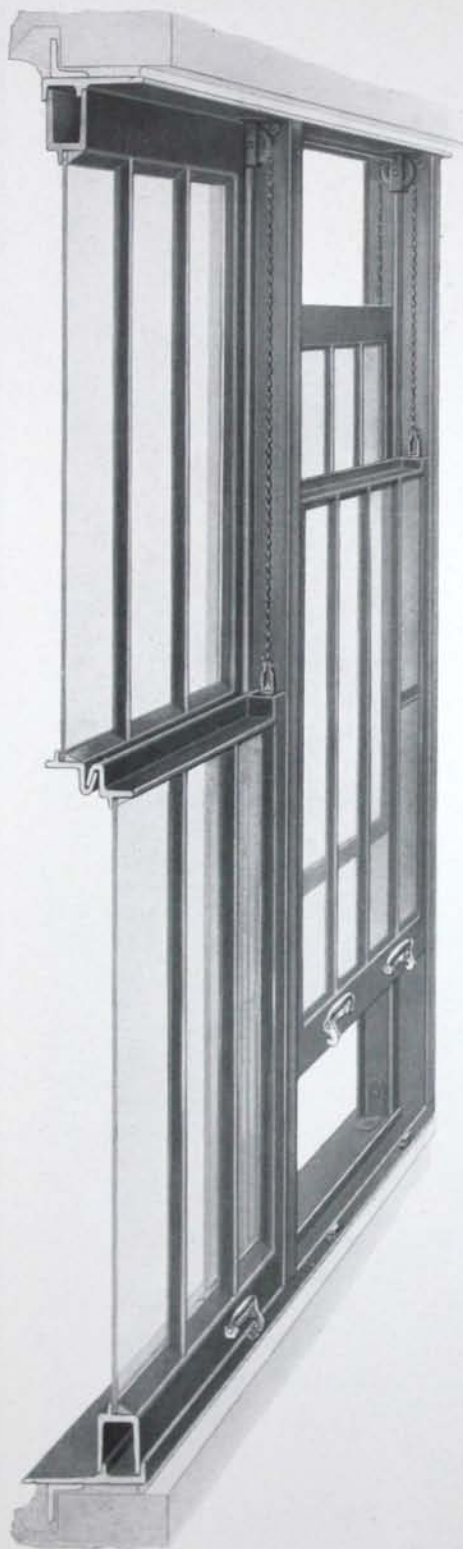


Champion Tool Co., Cincinnati, Ohio. Perfect daylighting obtained with Truscon Continuous Sash in sawtooth roof and Truscon Steel Windows for side walls

Counterbalanced Types
of
Truscon Steel Windows



Part Three



Vertical Sectional Perspective
Counterbalanced Window Type G

Counterbalanced Types of Truscon Steel Windows

The use of vertically sliding windows is growing in popularity and is essential to many buildings. Sliding windows permit the unobstructed use of screens and shades, do not interfere with tables and desks placed at windows, and facilitate the cleaning of the glass. These windows are particularly adapted to office buildings, schools and high grade industrial buildings.

In Truscon Sliding Windows the lower sash is counterbalanced against the upper. The outside members are especially heavy sections of rolled steel welded at the corners, thus giving the sash exceptional rigidity and ease of operation.

The sash slide in heavy mullions and jambs of special rolled sections which are accurate and true to line. The sill and lintel members are of solid steel sections so designed as to form a perfect weather-tight contact with the sash. The meeting rails consist of rolled steel sections so formed as to interlock and afford weathertightness.

The sash are hung on galvanized steel chains which operate over steel roller bearing pulleys. The two lifts attached to the lower sash combine within themselves an automatic locking device. The latch is released on raising the sash with the lifts and the closing of the sash automatically locks it. All hardware is manufactured in our own shops and is of substantial design of a nature to easily operate the sash and render enduring service.

The general construction of the sash is of high quality throughout, the muntins being united under powerful presses into solid sections. The workmanship and finish are of the highest grade. Counterbalanced Truscon Steel Windows have clean-cut lines, giving an attractive appearance in keeping with the highest types of commercial, public and industrial buildings.

Types of Counterbalanced Truscon Steel Windows

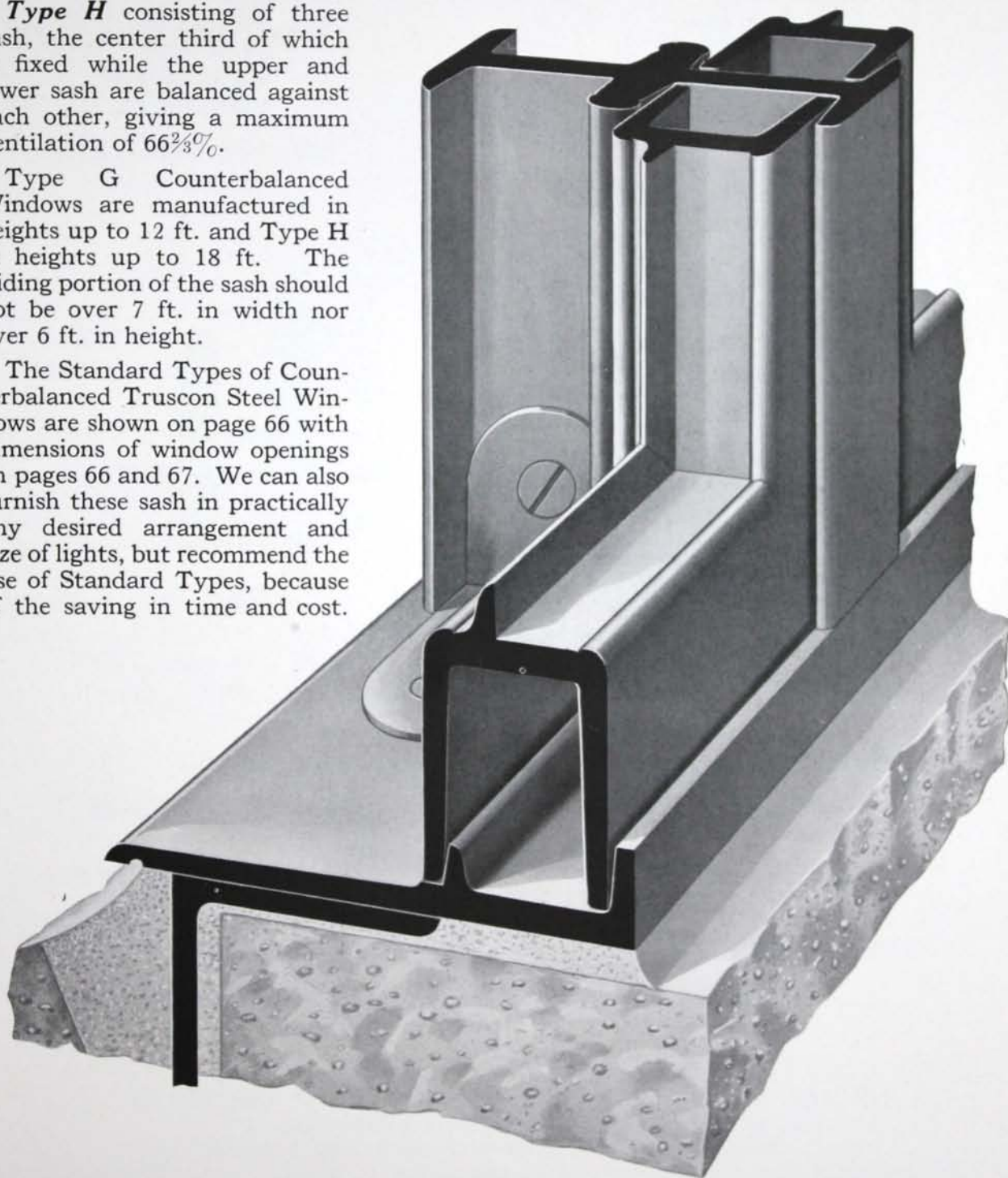
Counterbalanced windows are furnished in two types:

Type G consisting of two sash to a window, one balanced against the other, giving a maximum ventilation of 50%;

Type H consisting of three sash, the center third of which is fixed while the upper and lower sash are balanced against each other, giving a maximum ventilation of 66 $\frac{2}{3}$ %.

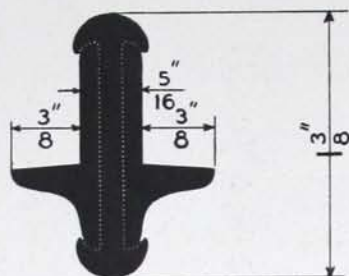
Type G Counterbalanced Windows are manufactured in heights up to 12 ft. and Type H in heights up to 18 ft. The sliding portion of the sash should not be over 7 ft. in width nor over 6 ft. in height.

The Standard Types of Counterbalanced Truscon Steel Windows are shown on page 66 with dimensions of window openings on pages 66 and 67. We can also furnish these sash in practically any desired arrangement and size of lights, but recommend the use of Standard Types, because of the saving in time and cost.

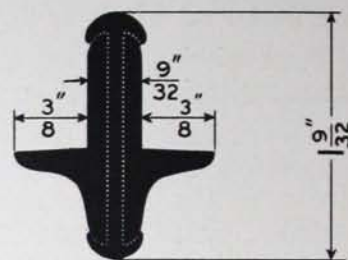


Corner of Counterbalanced Truscon Steel Windows Showing Excellence of Construction and Weathering

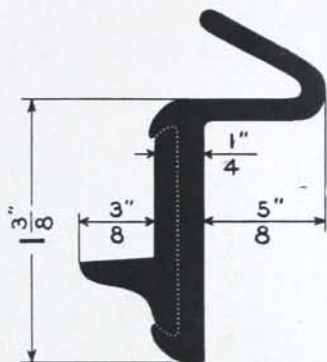
COUNTERBALANCED TRUSCON STEEL WINDOWS



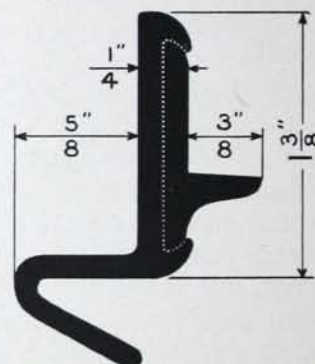
№ 121 SECTION



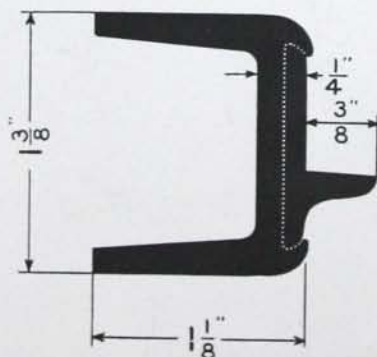
№ 101 SECTION



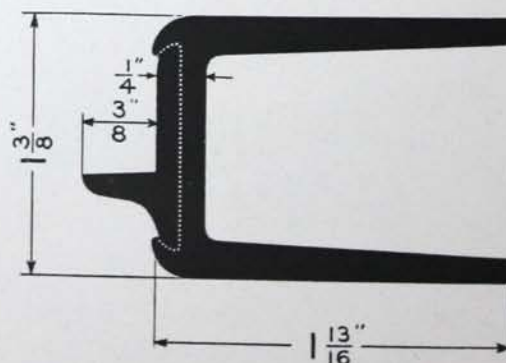
№ 1M SECTION
(*№ M Reversed*)



№ 1M SECTION
(*№ M Regular*)



№ 1D SECTION

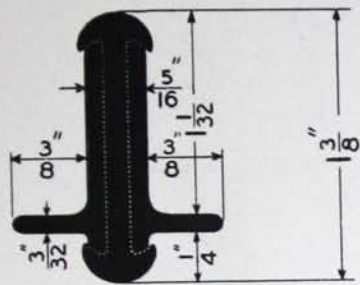


№ 1P SECTION

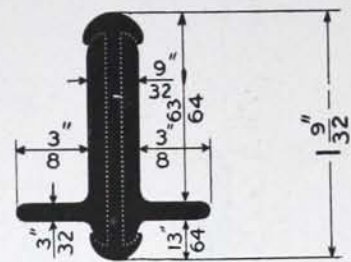
Sections of Counterbalanced Truscon Steel Windows

Used with Putty Glazing.

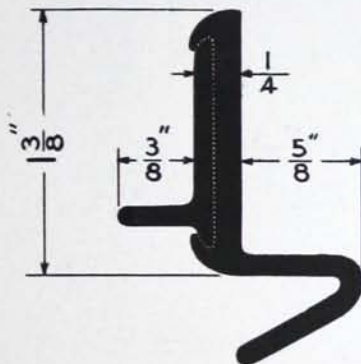
TRUSCON STEEL COMPANY



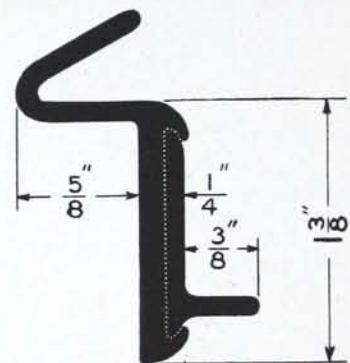
NO C2C SECTION



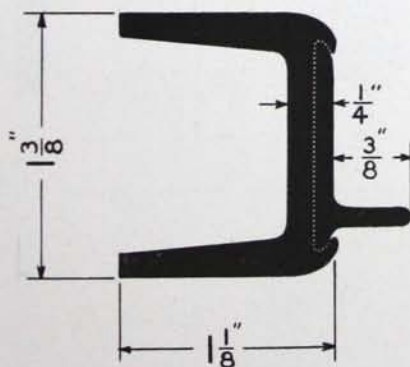
NO COC SECTION



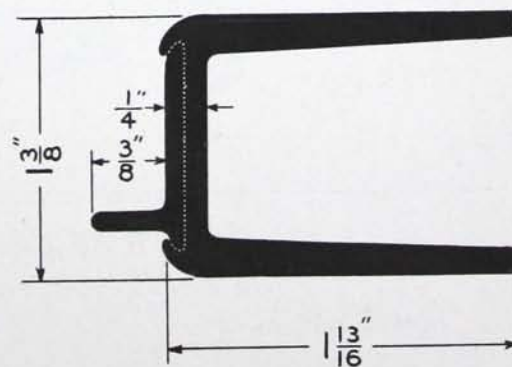
NO CM SECTION
(*NO M Regular*)



NO CM SECTION
(*NO M Reversed*)



NO CD SECTION

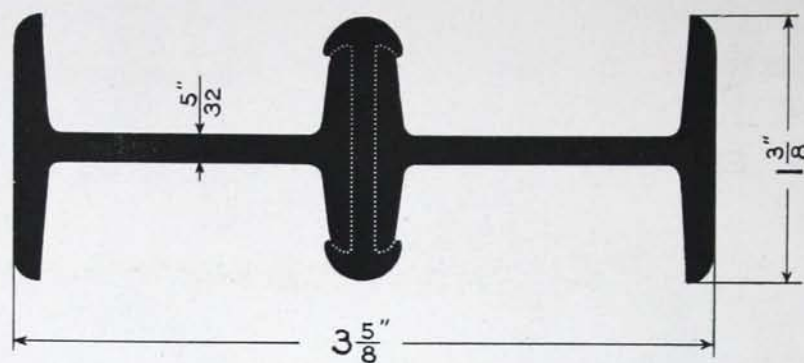


NO CP SECTION

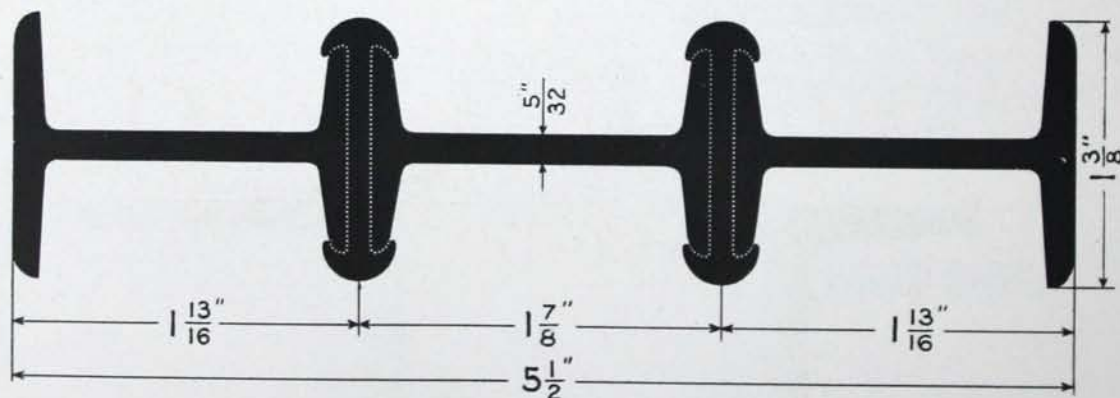
Sections of Counterbalanced Truscon Steel Windows

Used with Steel Angle Glazing Stops.

COUNTERBALANCED TRUSCON STEEL WINDOWS



NO R2R SECTION
Type G Mullion and Jamb Section



NO R2F2R SECTION
Type H Mullion and Jamb Section

Mullion and Jamb Sections of Counterbalanced Truscon Steel Windows

Technical drawing of a mechanical part, likely a bracket or support, showing dimensions and material specifications.

Dimensions (in inches):

- Overall height: 2"
- Overall width: 4"
- Vertical section dimensions (from top):
 - 3/4"
 - 1/4"
 - 1/2"
- Horizontal section dimensions (from left):
 - 3/16"
 - 1 3/8"
- Small horizontal dimension at the bottom right: 1/4"
- Small vertical dimension at the bottom right: 1/8"

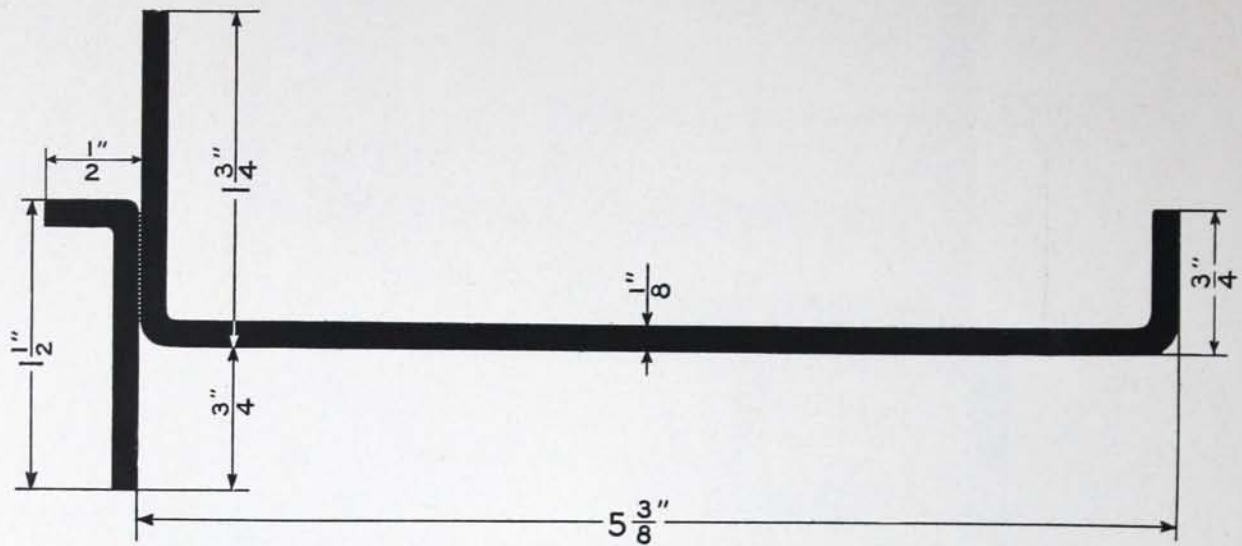
Material and Section Labels:

- 2" x 2" x 3/16" Angle* (pointing to the vertical section)
- No 18 Sec.* (pointing to the horizontal section)

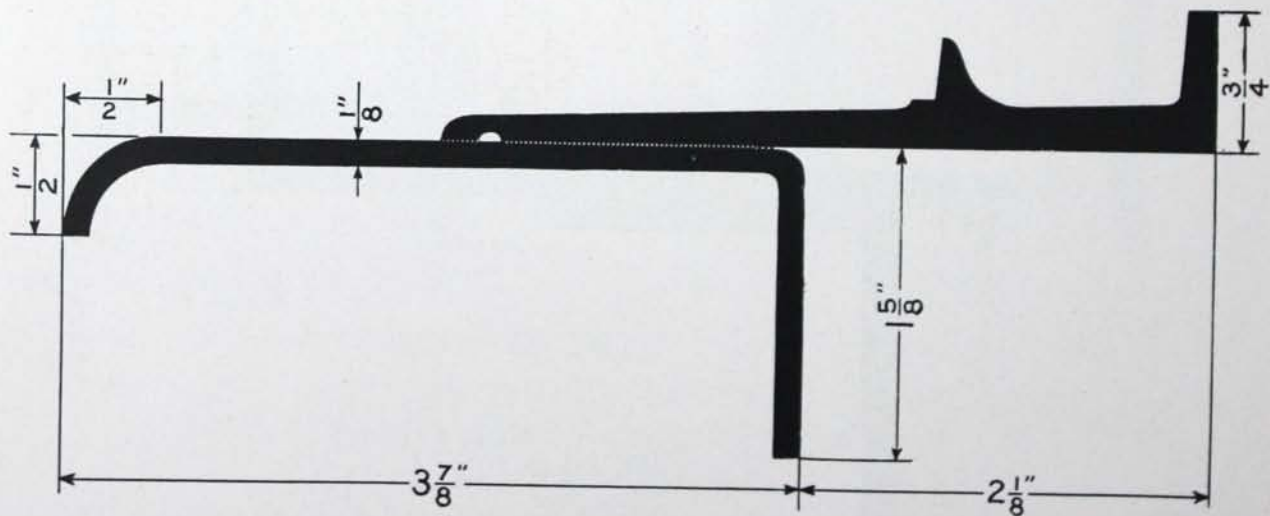
[illegible]

Page 61

COUNTERBALANCED TRUSCON STEEL WINDOWS



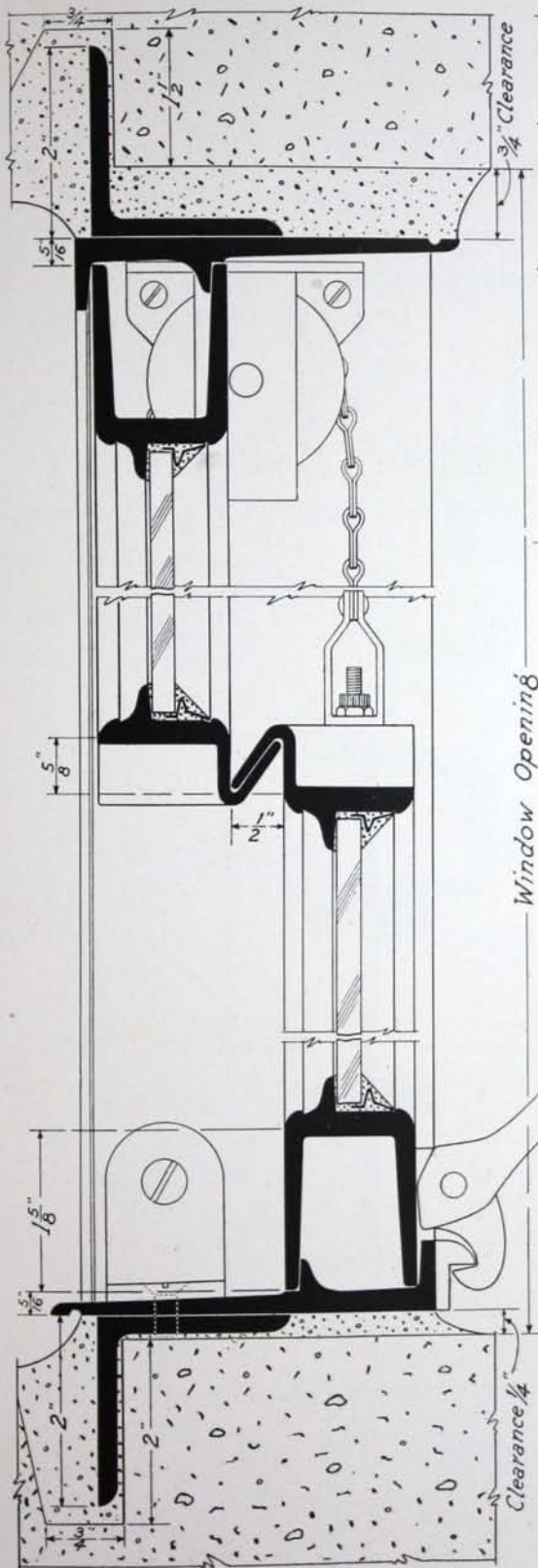
TYPE H LINTEL



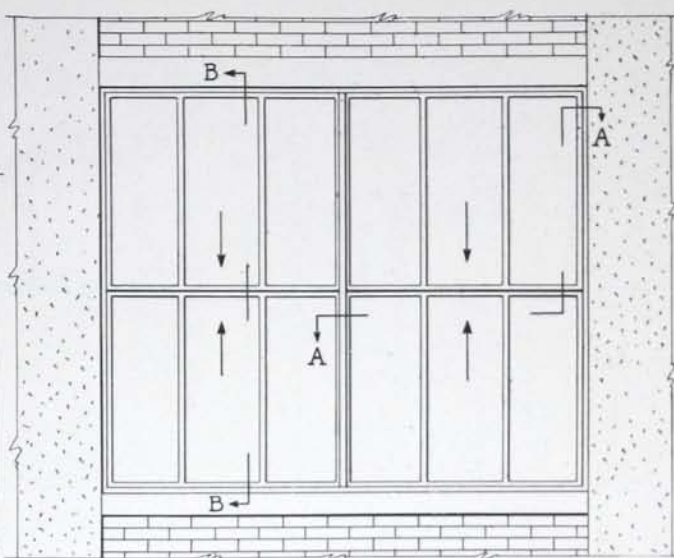
TYPE H SILL

Sill and Lintel Sections of Type H
Counterbalanced Truscon Steel Windows

TRUSCON STEEL COMPANY

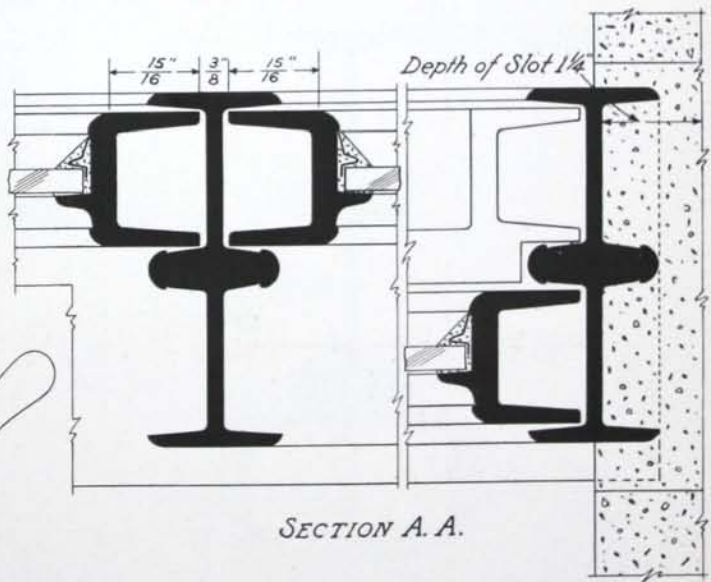


SECTION B.B.



EXTERIOR ELEVATION

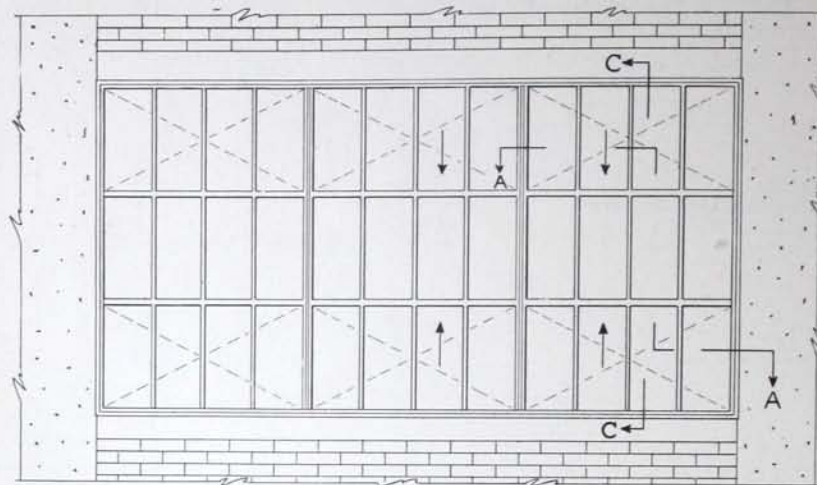
Window Opening



SECTION A.A.

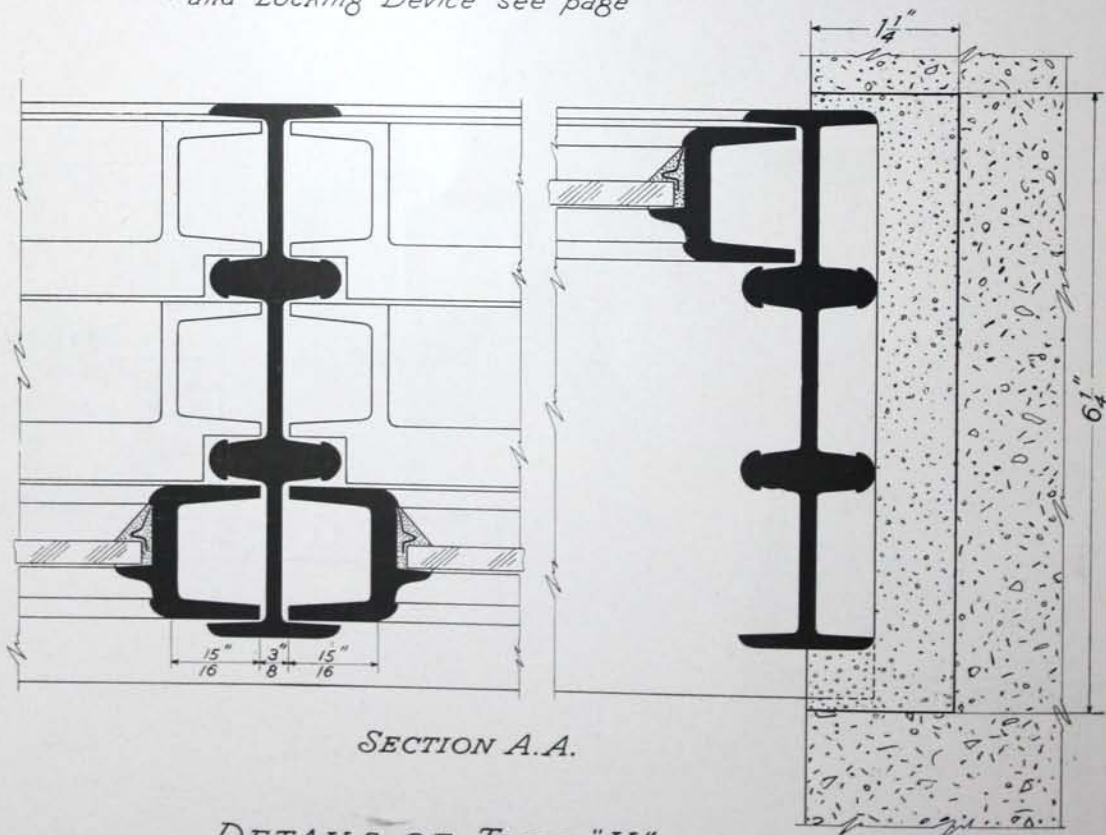
DETAILS OF TYPE "G"
COUNTERBALANCED SASH
1/2 SIZE

COUNTERBALANCED TRUSCON STEEL WINDOWS



EXTERIOR ELEVATION

Note—For Section CC showing Meeting Rail and Locking Device see page



SECTION A.A.

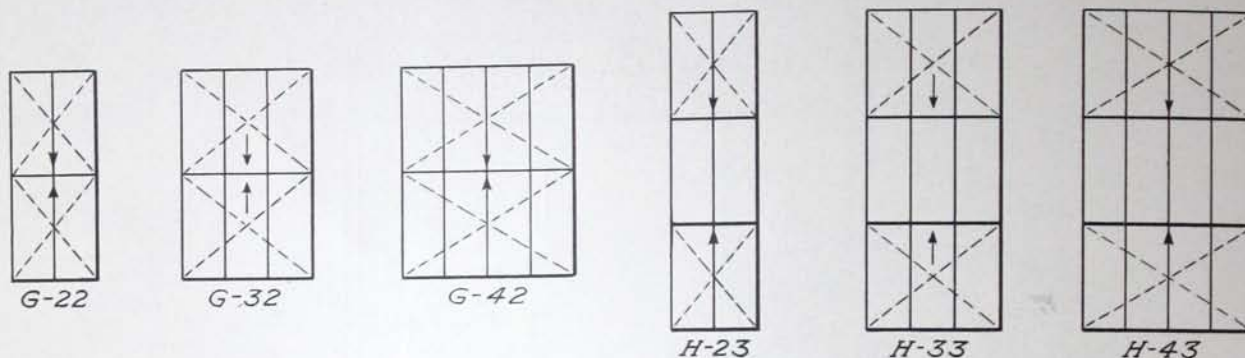
DETAILS OF TYPE "H"
COUNTERBALANCED SASH
1/2 SIZE

DETAILS OF
TYPE "H"
COUNTERBALANCED
SASH
1/2 SIZE



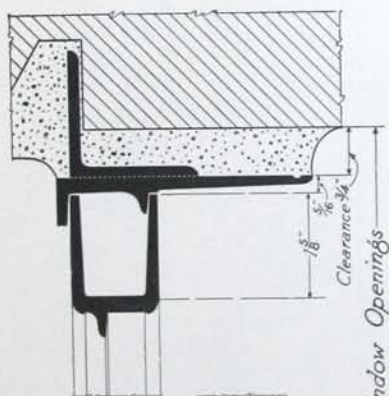
COUNTERBALANCED TRUSCON STEEL WINDOWS

Standard Types of Counterbalanced Truscon Steel Windows



Note—Above units are furnished in the following glass sizes:
 Widths—14", 16", 18", 20", 22" and 24". Exception for 2 lights wide.
 Heights—Type G, 2 lights high: 36", 42", 48", 54", 60", 66" and 72".
 Type H, 3 lights high: 36", 42", 48", 54", 60", 66" and 72".
 Sash of other sizes are special.

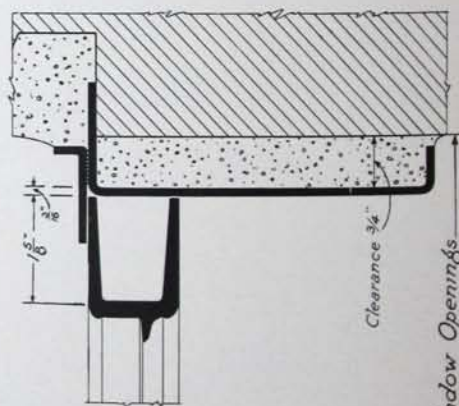
Heights of Window Openings for Counterbalanced Truscon Steel Windows



Type G

Window 2 Lights High

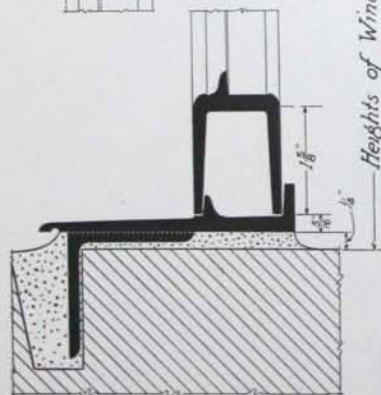
Heights of Window Openings	No. of Lights	Height of Glass
6'-6 1/2"	2	36"
7'-6 1/2"	2	42"
8'-6 1/2"	2	48"
9'-6 1/2"	2	54"
10'-6 1/2"	2	60"
11'-6 1/2"	2	66"
12'-6 1/2"	2	72"



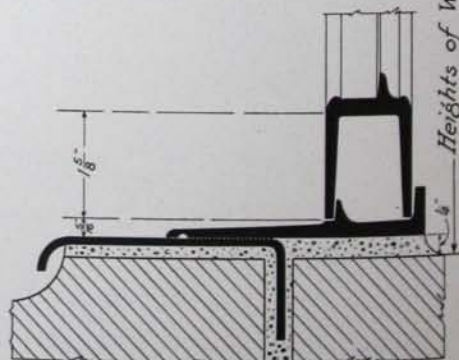
Type H

Window 3 Lights High

Heights of Window Openings	No. of Lights	Height of Glass
9'-7 1/2"	3	36"
11'-1 1/2"	3	42"
12'-7 1/2"	3	48"
14'-1 1/2"	3	54"
15'-7 1/2"	3	60"
17'-1 1/2"	3	66"
18'-7 1/2"	3	72"



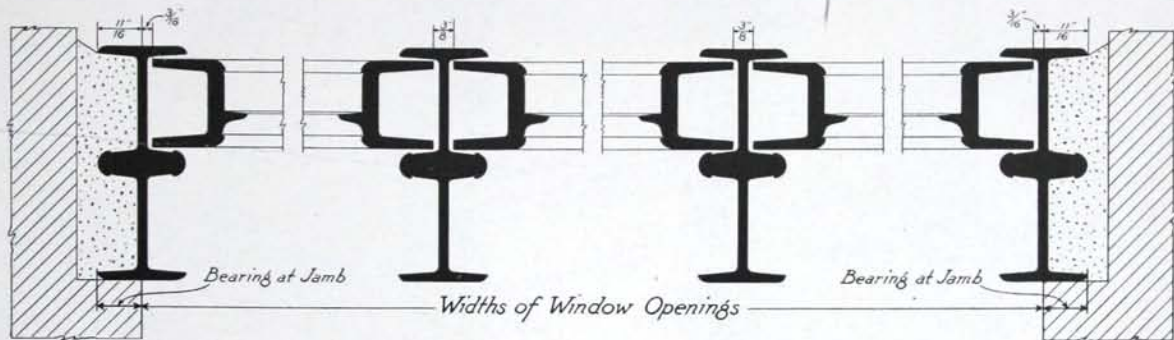
Type G



Type H

TRUSCON STEEL COMPANY

Widths of Window Openings for Types G and H Counterbalanced Truscon Steel Windows



Width of Glass						Total No. of Lights Wide	No. of Units	No. of Lights Wide				Bear- ing at Each Jamb
14"	16"	18"	20"	22"	24"			1st Unit	2nd Unit	3rd Unit	4th Unit	
			3'- 7 1/2"	3'-11 1/2"	4'- 3 1/2"	2	1	2				9"
3'-10"	4'- 4"	4'-10"	5'- 4"	5'-10"	6'- 4"	3	1	3				16"
5'- 0 1/2"	5'- 8 1/2"	6'- 4 1/2"	7'- 0 1/2"	7'-10 1/2"	8'- 6 1/2"	4	1	4				16"
			7'- 2 1/2"	7'-10 1/2"	8'- 6 1/2"	4	2	2	2			16"
7'- 7 1/2"	8'- 7 1/2"	9'- 7 1/2"	10'- 7 1/2"	11'- 7 1/2"	12'- 7 1/2"	6	2	3	3			16"
			10'-10"	11'-10"	12'-10"	6	3	2	2	2		16"
			12'- 6 1/2"	13'- 8 1/2"	14'-10 1/2"	7	3	2	3	2		16"
10'- 0 1/2"	11'- 4 1/2"	12'- 8 1/2"	14'- 0 1/2"	15'- 7"	16'-11"	8	2	4	4			16"
			14'- 3"	15'- 9"	17'- 1"	8	3	3	2	3		16"
			14'- 5"	17'- 5 1/2"	18'-11 1/2"	9	4	2	2	2	2	16"
11'- 5 1/2"	12'-11 1/2"	14'-5 1/2"	15'-11 1/2"	17'- 8"	19'- 4"	10	3	3	3	3		16"
12'- 8"	14'- 4"	16'- 0"	17'-10"	19'- 6"	21'- 2"	10	4	2	3	3	2	16"
			19'- 4 1/2"			11	3	4	3	4		16"
13'-10 1/2"	15'- 8 1/2"	17'- 6 1/2"	19'- 1"	21'- 3"	23'- 3"	12	3	4	4	4		16"
15'- 1"	17'- 1"	19'- 3"	21'- 3"	23'- 3"	25'- 3"	12	4	3	3	3	3	16"
15'- 3"	17'- 3"	19'- 3"	21'- 3"	23'- 3"	25'- 3"	12	4	3	3	3	3	16"
17'- 8"	20'- 0"	22'- 4"	24'- 8"			14	4	3	4	4	3	16"
20'- 1"	22'- 9"	25'- 5"	28'- 1"			16	4	4	4	4	4	16"

COUNTERBALANCED TRUSCON STEEL WINDOWS



Set F3 Hardware

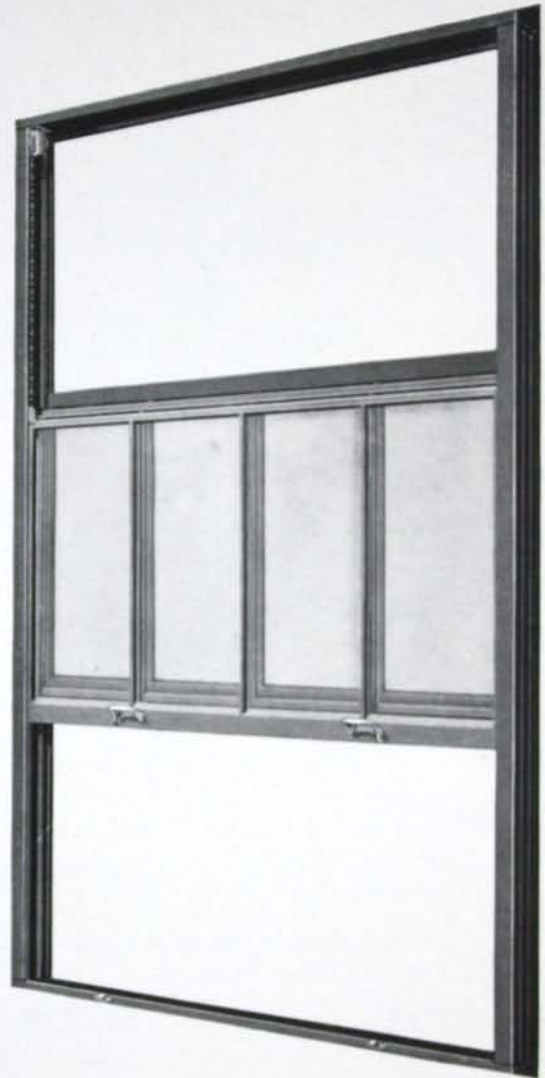
For Type "G" Counterbalanced Truscon Steel Windows

Ventilators of this type should not be made more than 7'-0" wide nor 6'-0" high.

This hardware is furnished in either malleable iron sherardized or brass.

The mullions, sills, lintels, sash and hardware are all shipped separately and must be assembled in the field by the contractor erecting the sash.

For further information see Hardware Catalog Plates 24 and 25.



Set F6 Hardware

For Type "H" Counterbalanced Truscon Steel Windows

Ventilators of this type should not be made more than 7'-0" wide nor 6'-0" high.

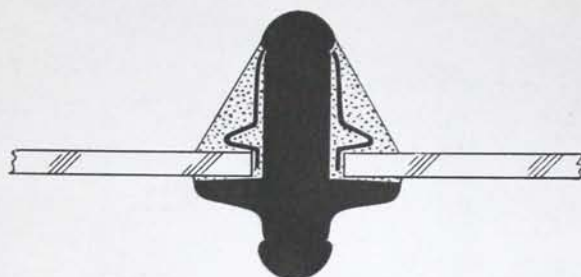
This hardware is furnished in either malleable iron sherardized or brass.

The mullions, sills, lintels, sash and hardware are all shipped separately and must be assembled in the field by the contractor erecting the sash.

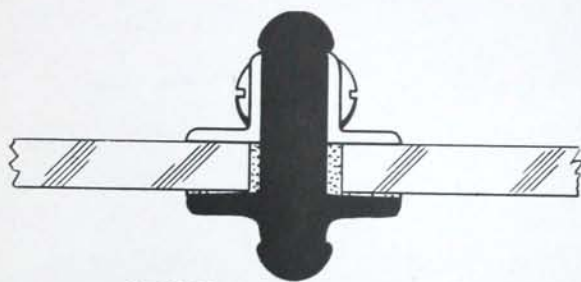
For further information see Hardware Catalog Plates 30 and 31.

COUNTERBALANCED TRUSCON STEEL WINDOWS

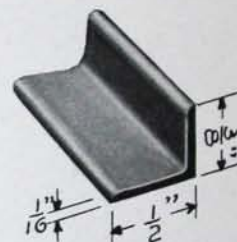
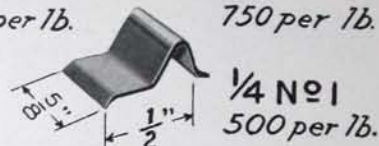
Glazing Counterbalanced Truscon Steel Windows



SINGLE GLAZING
(With Glazing Clips)



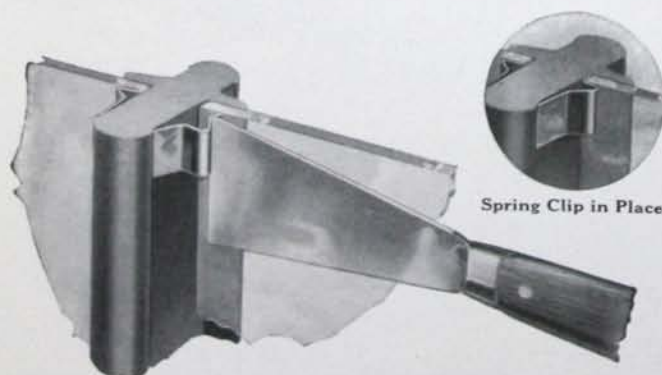
SINGLE GLAZING
(With Glazing Angle)



Counterbalanced sash are glazed either with Spring Clips and putty or with special glazing angles as shown above.

The special spring clips for glazing are readily set in place by means of an ordinary putty knife as illustrated. These clips firmly press the glass against the putty and at the same time have enough elasticity to take up the variations in the glass and to absorb the shock of vibration. If desired, special glazing pliers for installing clips can be supplied.

The glass bears evenly on its four edges against a continuous one-piece steel section extending completely around the light. There can be no movement at the joint to cause breakage of glass and loosening of putty. Spring Clips of proper size for any thickness glass are furnished free with each order.



Installing Spring Clip with Putty Knife. By pushing on the Putty Knife, the edge of the Spring Clip moves towards the sash until it springs in place

GLAZING ANGLES—We furnish a special glazing angle for use with counterbalanced windows. These angles are readily installed and held in place by means of special glazing turns, designed for the purpose.

Truscon Putty

Truscon Steel Sash Putty represents the result of extensive practical tests to determine the best product for metal sash. It glazes easily and smoothly, shows a perfect adhesion for both metal and glass, hardens throughout evenly and uniformly in a comparatively short time to a tough and resistive body, costs no more than any good putty and gives results that are far more efficient and satisfactory.

Instructions for Ordering Counterbalanced Windows

The following information should be furnished with each order for Counterbalanced Truscon Steel Windows.

1st. Name.

Give the name of the consignee, architect or engineer, owner and the name or title of the building.

2nd. Shipping Directions.

Show clearly the railroad to be shipped over, point of delivery, the date on which shipment is required and complete billing instructions.

3rd. Type of Windows.

Show the catalogue type, or a sketch of the window required, giving the number, arrangement and size of lights.

4th. Details.

Give page number showing detail required (see pages 63 to 65) or show special details required.

Show all opening dimensions, with allowable variations, if any.

5th. Hardware.

Specify the TYPE of hardware and FINISH required, whether in malleable, brass, or bronze. See pages 68 and 69.

6th. Glass, Glazing and Putty.

State whether putty or glazing angles are to be used; kind of glass and whether inside or outside glazing.

State the thickness of glass to be used that proper clips may be furnished.

Specify color of putty to be supplied. Red putty is furnished unless otherwise specified.

7th. Miscellaneous.

Furnish all information regarding any special details, or material to be furnished with windows, such as structural steel, expansion bolts, inserts, provision for curtain brackets or screens.

8th. Approval.

In all cases where drawings or sketches are sent in with contract such drawings or sketches should contain the approval of the purchaser or architect, in writing, before manufacture will be started.

COUNTERBALANCED TRUSCON STEEL WINDOWS



Massachusetts Institute of Technology, Cambridge, Mass. William W. Bosworth, Architect
Counterbalanced Truscon Steel Windows Used Throughout



Wayne County Detention Home, Detroit, Mich.
Counterbalanced Truscon Steel Windows Used Throughout

Wm. Stratton, Architect



Bureau of Printing and Engraving, Washington, D. C.
Vertically Sliding Truscon Steel Windows Used Throughout

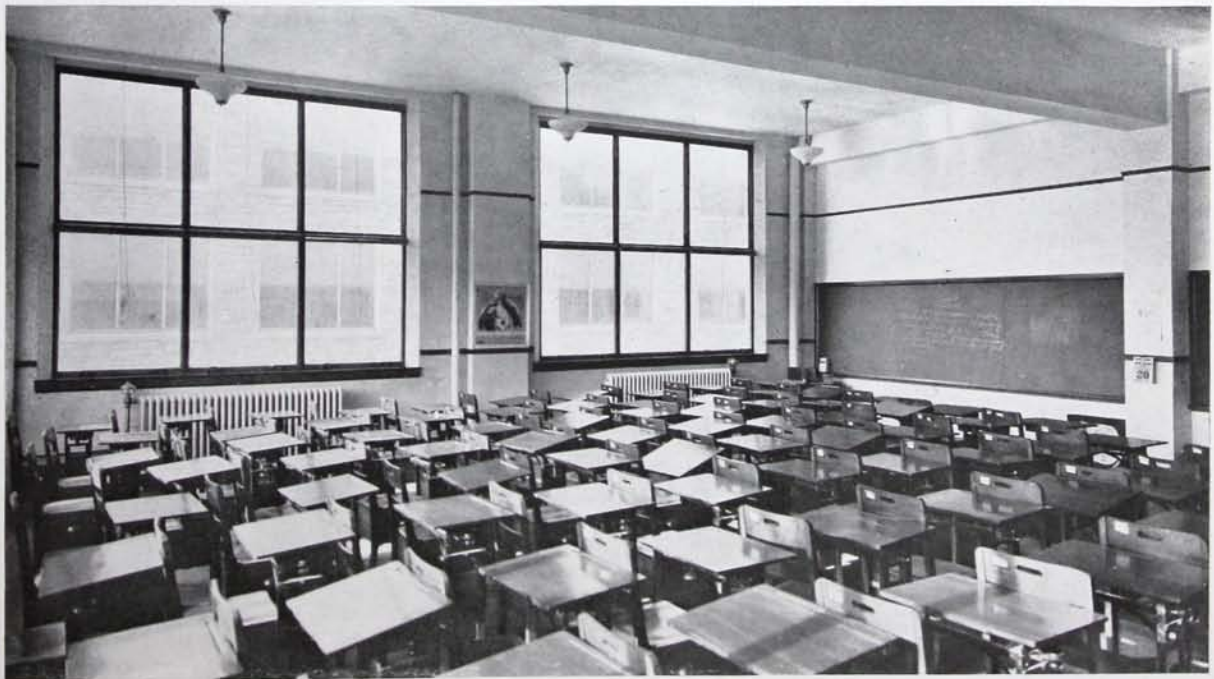
James Knox Taylor,
Supervising Architect

TRUSCON STEEL COMPANY



Thomson School, Highland Park, Mich.
Counterbalanced Truscon Steel Windows Type G

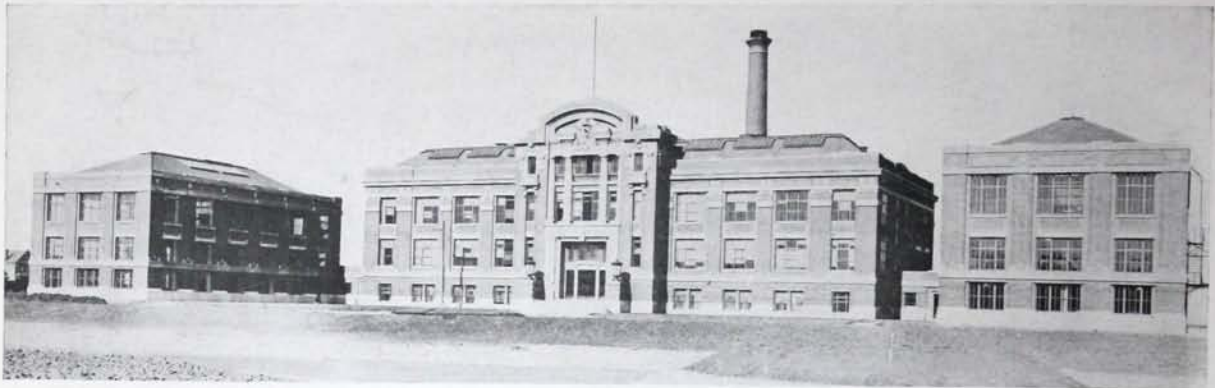
Wells D. Butterfield, Architect



Highland Park High School, Highland Park, Mich.
Truscon Counterbalanced Windows

Wells D. Butterfield, Architect
Bryant & Detwiler, Contractors

COUNTERBALANCED TRUSCON STEEL WINDOWS



Pullman Schools, Chicago, Ill.

C. Frank Jobson, Architect

Counterbalanced Truscon Steel Windows and Casements Used Throughout this Group of School Buildings



Detroit News Building, Detroit, Mich.

Albert Kahn, Architect

In this building are used Truscon Steel Windows of the following types: Counterbalanced Sash, Pivoted Sash, Casements, Continuous Sawtooth Sash, Steel and Glass Partitions and Steel Doors

TRUSCON STEEL COMPANY



Mills, Rhines, Bellman & Nordhoff, Architects

Building No. 75, Willys-Overland Plant, Toledo, Ohio

Counterbalanced Truscon Steel Windows, G and H Types



Mills, Rhines, Bellman & Nordhoff, Architects

Willys-Overland Company, Kansas City, Mo.

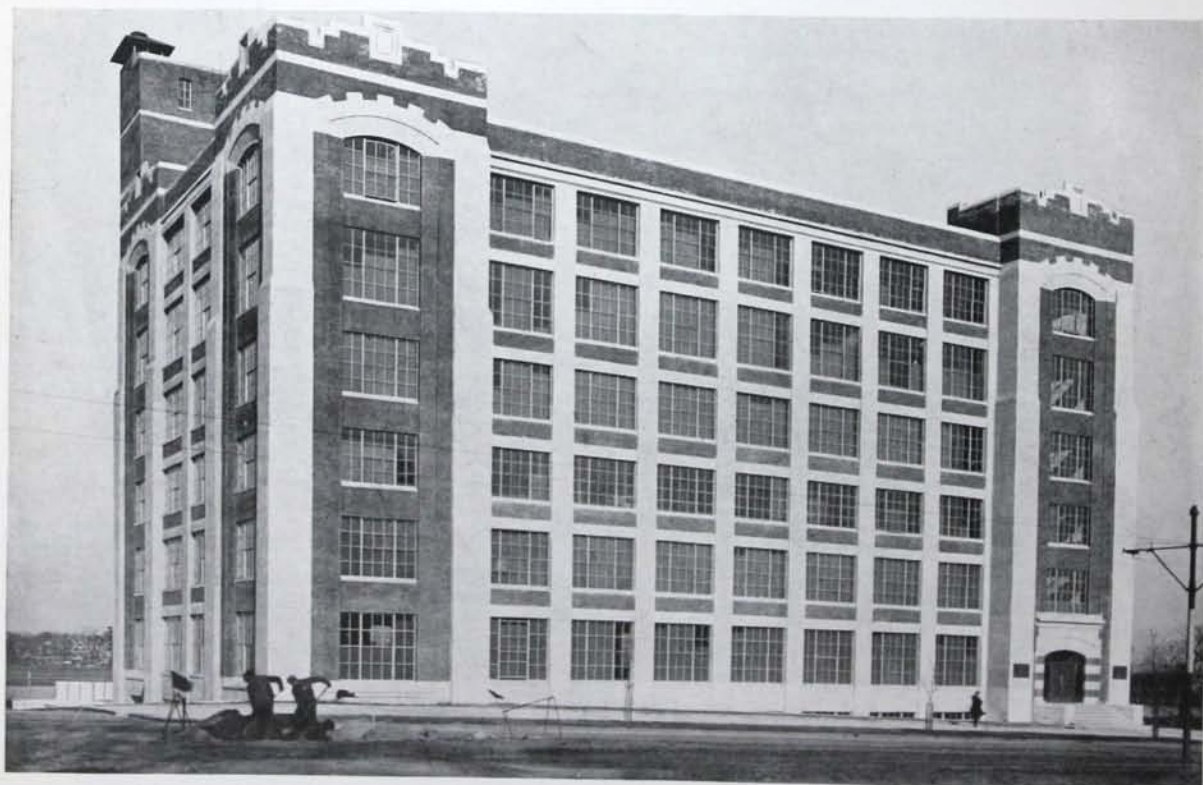
Counterbalanced and Pivoted Truscon Steel Windows Used Throughout

COUNTERBALANCED TRUSCON STEEL WINDOWS



Kansas City Southeast High School, Kansas City, Mo.
Daylighted with Counterbalanced Truscon Steel Windows

Smith, Rae & Lovitt,
Architects



Perry Mason Building, Brighton, Mass.
Counterbalanced Truscon Steel Windows, Type G

Densmore & Leclear, Engineers

TRUSCON STEEL COMPANY



Allentown High School, Allentown, Pa.

Ruhe & Lange, Architects

Schoolrooms Perfectly Daylighted by use of Counterbalanced Truscon Steel Windows

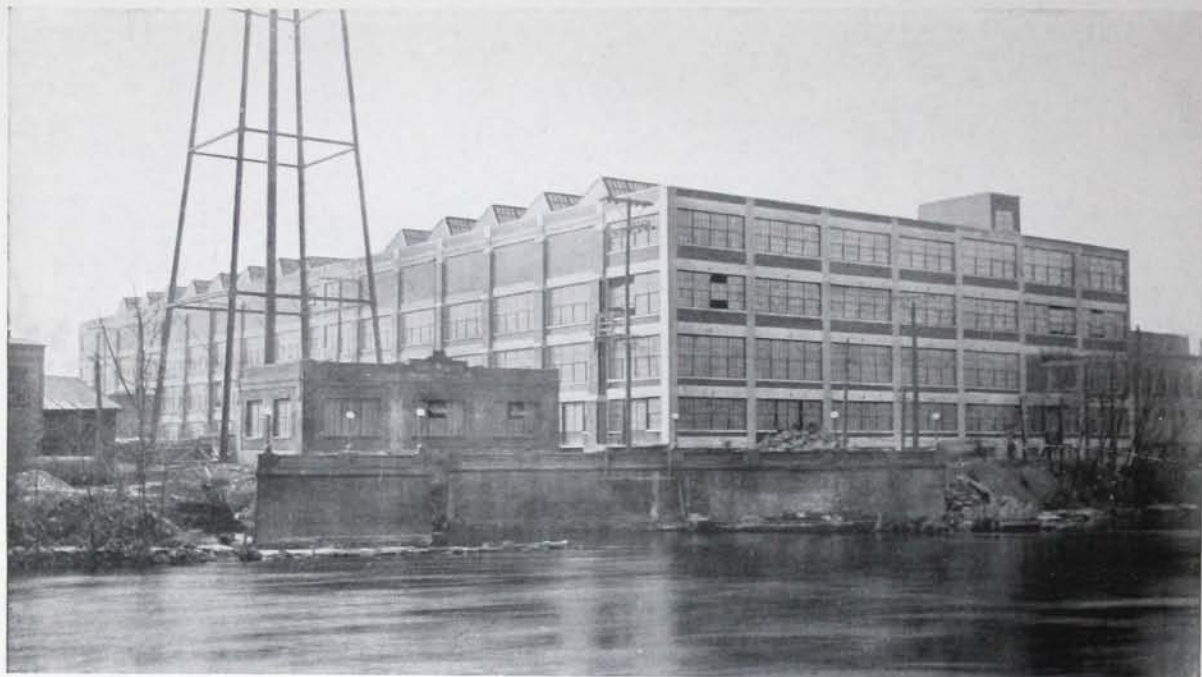


Sherman School, Toledo, Ohio.

E. N. Gee, Architect
H. J. Spieker Construction Co., Contractors

Counterbalanced Truscon Steel Windows

COUNTERBALANCED TRUSCON STEEL WINDOWS



Mishawaka Woolen Mills Co., Mishawaka, Ind.

Albert Kahn, Architect

Counterbalanced Truscon Steel Windows G and H Types and Truscon Continuous Steel Sash Used Throughout

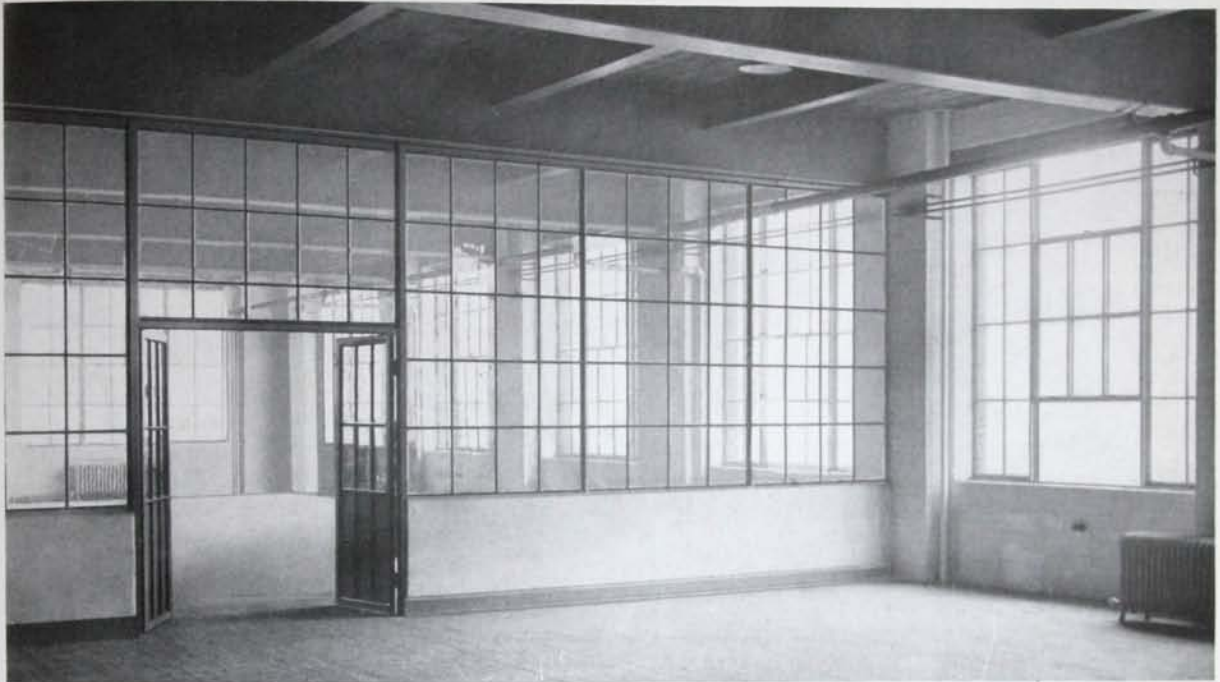


J. H. Wickersham, Designing and Constructing Engineer

Counterbalanced Truscon Steel Windows in this Building of Hershey Chocolate Co., Hershey, Pa.

Truscon Steel Windows and Truscon Reinforced Concrete are used Throughout This Entire Plant

TRUSCON STEEL COMPANY



Washington Navy Yard, Washington, D. C.
Truscon Steel Doors, Partitions and Special Sash

Truscon Steel Doors, Partitions and Special Sash

The standard steel windows described in the preceding pages will meet all practical requirements of daylighting and ventilation. The use of special sash entails a departure from standardized manufacturing methods thereby increasing costs and delaying shipments.

Our well equipped plant is in a position to manufacture steel sash to meet special requirements. Pivoted sidewall sash can be furnished in other glass sizes than shown in preceding pages. Also ventilators can be furnished in other sizes and pivoted near top or bottom.

Truscon Steel Doors are furnished in many types and all practical sizes. Doors can be either swinging or sliding. Outside door rails are formed of heavy rolled steel sections welded at the corners, giving exceptional rigidity. Workmanship and finish are of the highest quality. Hardware is manufactured in our shops, being especially designed for these doors. For details see Hardware Catalog.

Fireproof, daylight partitions are built by combining Truscon Steel Windows with a supporting wall as base. Any of the Truscon Windows with or without ventilators can be used in partitions.

Our corps of specialists will furnish complete details and information on special sash, doors and partitions. We strongly recommend the use of stock and standard windows shown in the preceding pages because of the advantages of speed and economy. Our specialists will help you select the windows best suited to your purpose.

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TRUSCON STEEL WINDOWS

